

# **FUNAI** **SERVICE MANUAL**

**Subject: New type of deck mechanism**

1. This service manual contains new deck mechanism (Deck no. N3103XN). Before attempt to servicing, please remove the top case and confirm the kind of deck mechanism. Deck mechanism part number is shown on the upper part of it (Right corner). This deck number is showing as below :

Deck no. N3103XN -----> **3103**

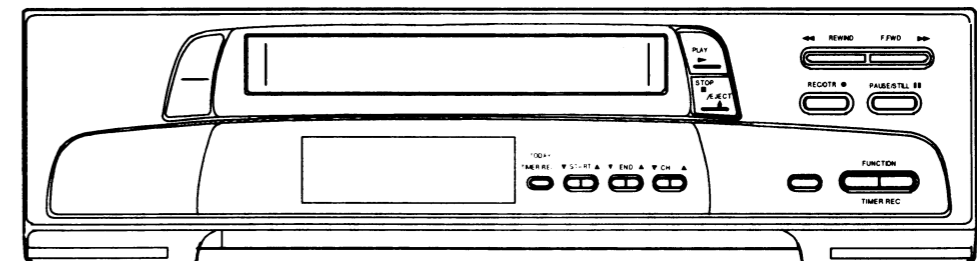
If the deck number other than " 3101 ", refer to original service manual for service.

2. This service manual is applied the models V-8008CM(N) and V-8008SA(N) with new serial number label which indicates suffix " A " at last digit of the serial number.

If the deck number other than " A ", refer to original service manual for service.

## **VIDEO CASSETTE RECORDER**

### **V-8008CM(N) / V-8008SA(N)**



# MAIN SECTION

## VIDEO CASSETTE RECORDER

### V-8008CM(N) / V-8008SA(N)

**Sec. 1: Main Section**

- Specifications
- Preparation for Servicing
- Adjustment Procedures
- Schematic Diagrams
- CBA' s

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SPECIFICATIONS

Description	Unit	Minimum	Nominal	Maximum	Condition
1. Video					F6-A
1-1 Video Output (PB)	Vp-p	0.8	1.0	1.2	SP Mode
1-2 Video Output (R/P)	Vp-p	0.8	1.0	1.2	SP Mode
1-3 Video S/N Y (R/P)	dB	40	44		SP Mode
1-4 Video Color S/N AM (R/P)	dB	37	41		SP Mode
1-5 Video Color S/N PM (R/P)	dB	30	36		SP Mode
1-6 Resolution (PB)	Line	230	245		SP Mode
2. Servo					F6-N
2-1 Jitter Low (PB)	μsec	0.12	0.07		SP Mode
2-2 Wow & Flutter (R/P)	%	0.5	0.3		SP Mode
3. Audio					F6-A
3-1 Output (PB)	dBV	-11	-8	-5	SP Mode
3-2 Output (R/P)	dBV	-11	-8	-3.5	SP Mode
3-3 S/N (R/P)	dB	36	41		SP Mode
3-4 Distortion (R/P) Input ; -10dB	%	4.0	1.0		SP Mode
3-5 Freq. response (R/P) at 100Hz	dB	-7	-4		SP Mode
(-20dB ref. 1kHz) at 8kHz	dB	-10	-4		SP Mode
4. Tuner		B/G	D/K		
4-1 Channel VL	CH	E2-E4	R1-R5		E-E Mode
VH	CH	E5-E12	R6-R12		E-E Mode
UHF	CH	E21-E69	E21-E69		E-E Mode
4-2 Video Output	Vp-p	0.8	1.0	1.2	E-E Mode
4-3 Video S/N (E 45CH)	dB	39	42		E-E Mode
4-4 Audio Output	mV/rms	250	400	550	E-E Mode
4-5 Audio S/N	dB	40	46		E-E Mode

**Note:** Nominal specs represent the design specs. All units should be able to approximate these – some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable; In no case should a unit fail to meet limit specs.

IMPORTANT SAFETY PRECAUTIONS

Product Safety Notice

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by a ⚠ on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part

might create shock, fire, and/or other hazards. The Product's Safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are carefully inspected to confirm with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Precautions during Servicing

- A. Parts identified by the ⚠ symbol are critical for safety.  
Replace only with part number specified.
- B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.  
Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.
- C. Use specified internal wiring. Note especially:
  - 1) Wires covered with PVC tubing
  - 2) Double insulated wires
  - 3) High voltage leads
- D. Use specified insulating materials for hazardous live parts. Note especially:
  - 1) Insulation tape
  - 2) PVC tubing
  - 3) Spacers
  - 4) Insulators for transistors
- E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.
- F. Observe that the wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
- G. Check that replaced wires do not contact sharp edges or pointed parts.

- H. When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.
- I. Also check areas surrounding repaired locations.
- J. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.
- K. Crimp type wire connector  
The power transformer uses crimp type connectors which connect the power cord and the primary side of the transformer. When replacing the transformer, follow these steps carefully and precisely to prevent shock hazards.  
Replacement procedure
  - 1) Remove the old connector by cutting the wires at a point close to the connector.**Important:** Do not re-use a connector. (Discard it.)
  - 2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.
  - 3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.
  - 4) Use a crimping tool to crimp the metal sleeve at its center. Be sure to crimp fully to the complete closure of the tool.
- L. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC outlet.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts, and wires have been returned to their original positions. Afterwards, do the following tests and confirm the specified values to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1 : Ratings for selected area

AC Line Voltage	Region	Clearance Distance (d) (d')
220 to 240 V	Europe or Australia	$\geq 4\text{ mm(d)}$ $\geq 6\text{ mm(d')}$

**Note:** This table is unofficial and for reference only. Be sure to confirm the precise values.

2. Leakage Current Test

Confirm the specified (or lower) leakage current between B (earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) is lower than or equal to the specified value in the table below.

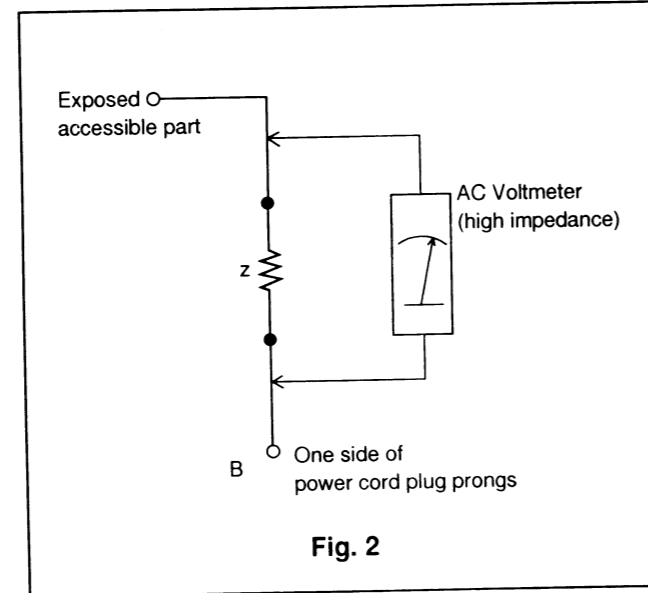
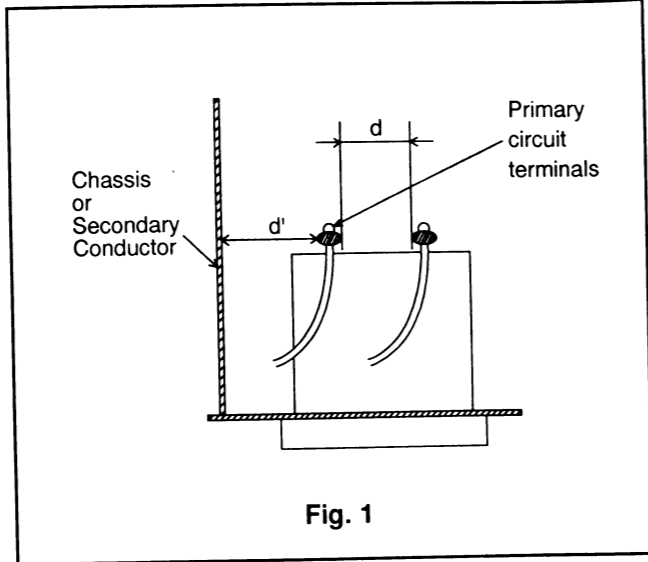
Measuring Method (Power ON) :

Insert load Z between B (earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across the terminals of load Z. See Fig. 2 and the following table.

Table 2 : Leakage current ratings for selected areas

AC Line Voltage	Region	Load Z	Leakage Current (i)	One side of power cord plug prongs (B) to:
220 to 240 V	Europe or Australia	2kΩ RES. Connected in parallel	$i \leq 0.7\text{mA AC Peak}$ $i \leq 2\text{mA DC}$	RF or Antenna terminals
		50kΩ RES. Connected in parallel	$i \leq 0.7\text{mA AC Peak}$ $i \leq 2\text{mA DC}$	A/V Input, Output

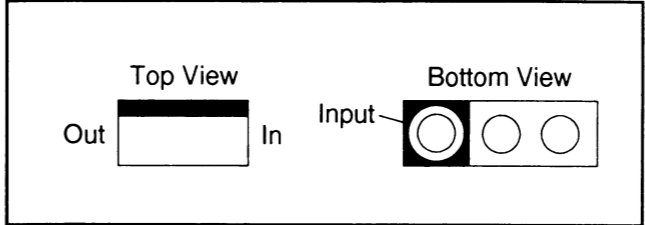
**Note:** This table is unofficial and for reference only. Be sure to confirm the precise values.



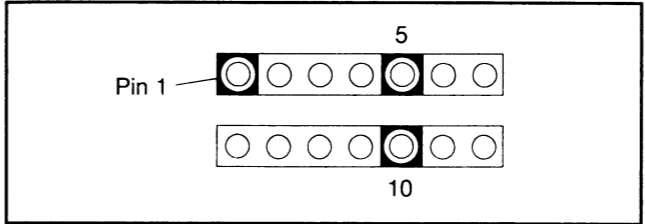
STANDARD NOTES FOR SERVICING

Circuit Board Indications

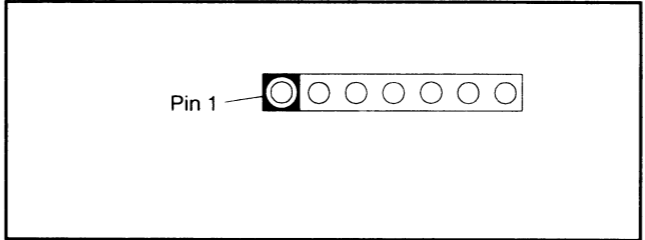
a. The output pin of the 3 pin Regulator ICs is indicated as shown.



b. For other ICs, pin 1 and every fifth pin are indicated as shown.

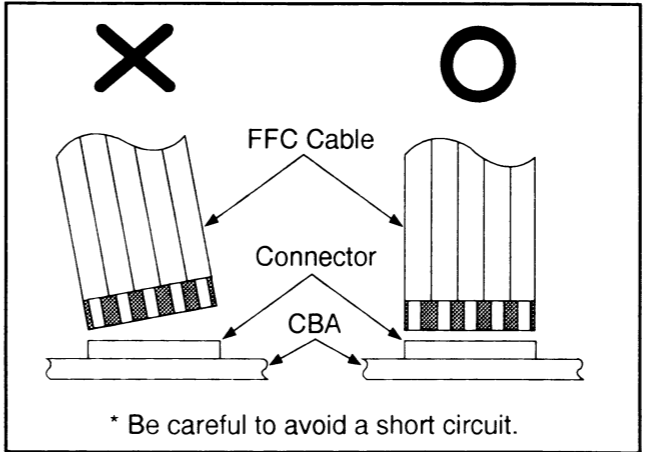


c. The 1st pin of every male connector is indicated as shown.



Instructions for Connectors

- When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.
- FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.

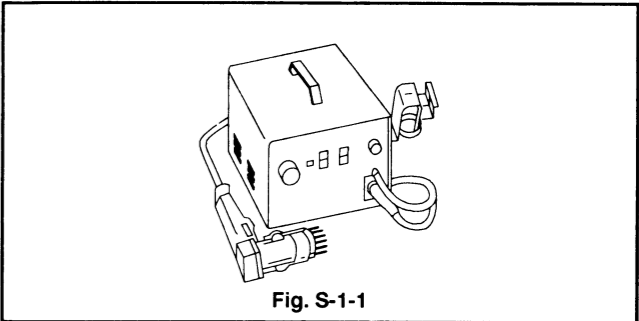


How to Remove / Install Flat Pack IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

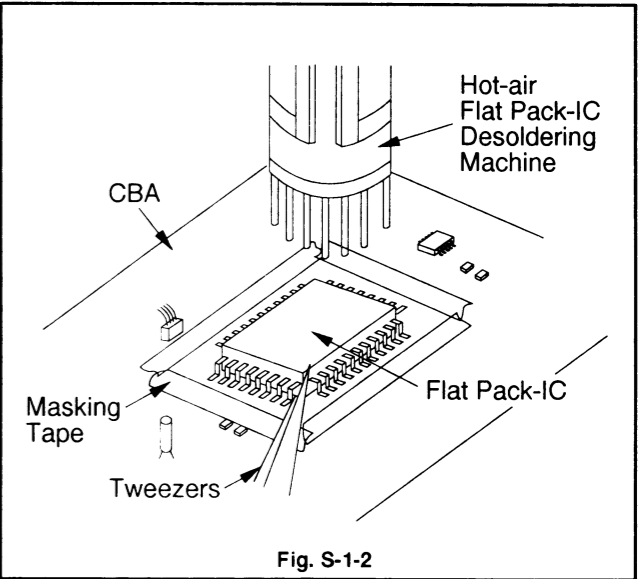
- Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)



- Remove the flat pack-IC with tweezers while applying the hot air.

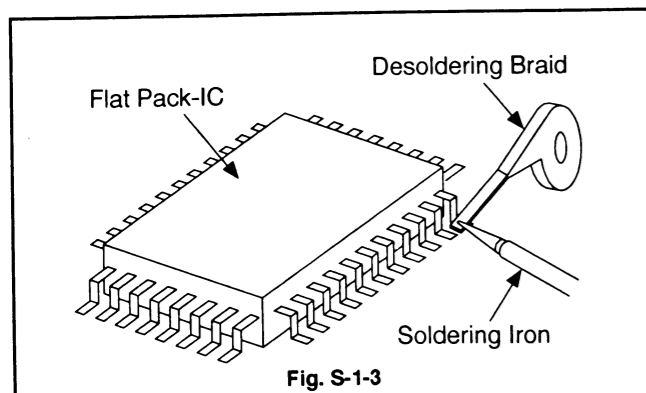
Caution:

- Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)
- The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder-lands under the IC when removing

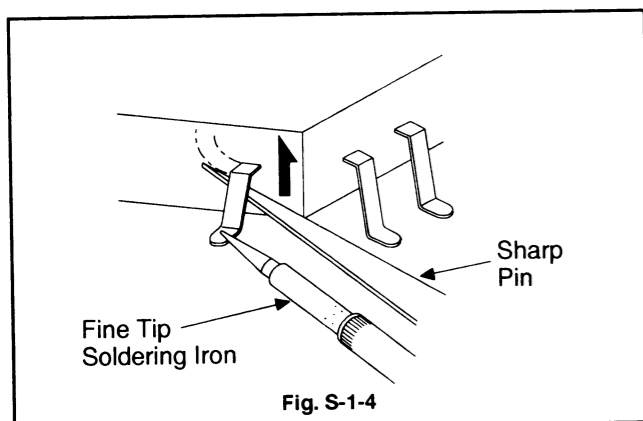


With Soldering Iron:

- Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)



- (2) Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

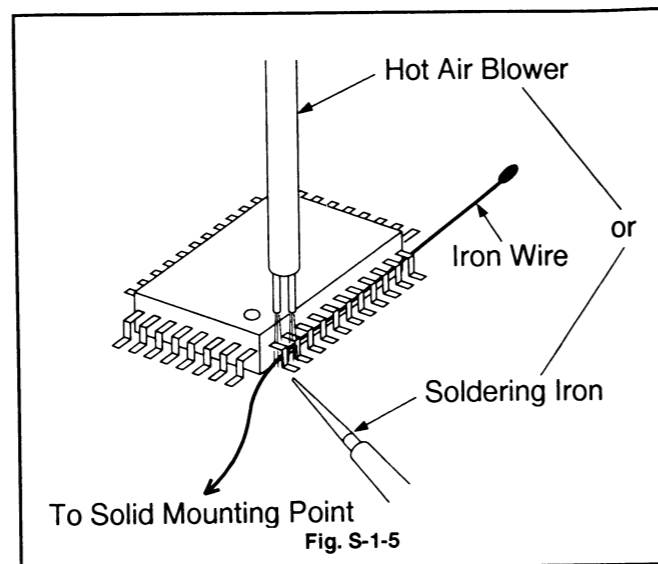


#### With Iron Wire:

- (1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)
- (2) Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.
- (3) While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.

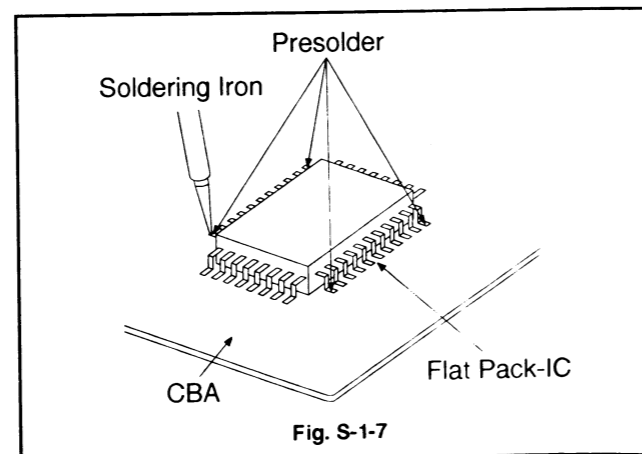
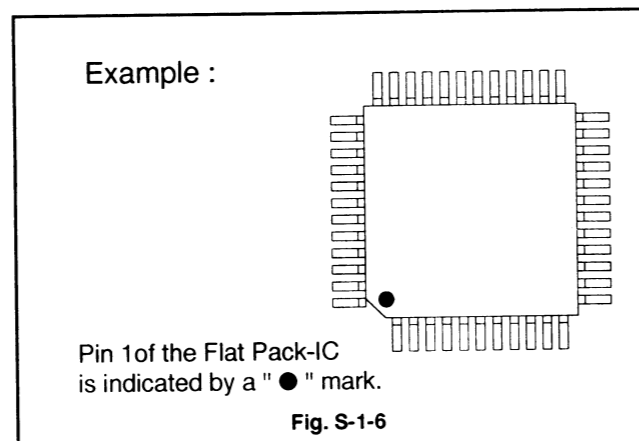
#### Note:

When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.



## 2. Installation

- (1) Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.
- (2) The "•" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-6.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then pre-solder the four corners of the flat pack-IC. (See Fig. S-1-7.)
- (3) Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.



## Instructions for Handling Semiconductors

Electrostatic breakdown of the semiconductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

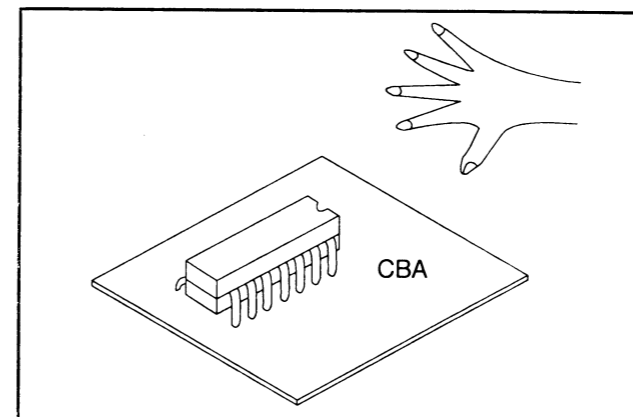
### 1. Ground for Human Body

Be sure to wear a grounding band (1M ohm) that is properly grounded to remove any static electricity that may be charged on the body.

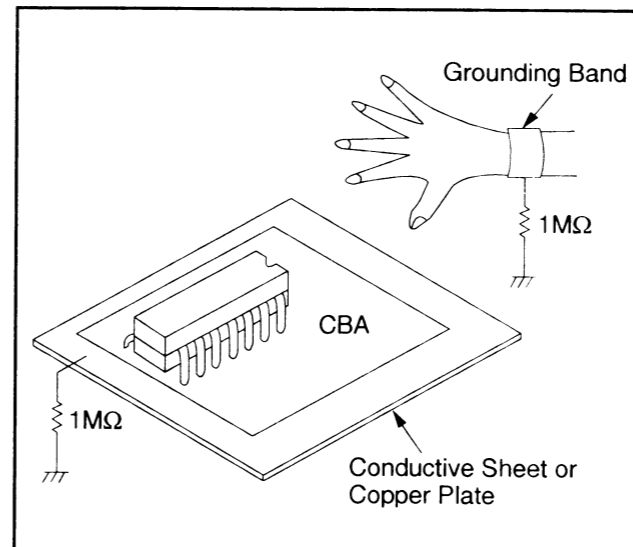
### 2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1M ohm) on the workbench or other surface, where the semiconductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semiconductors with your clothing.

#### Incorrect



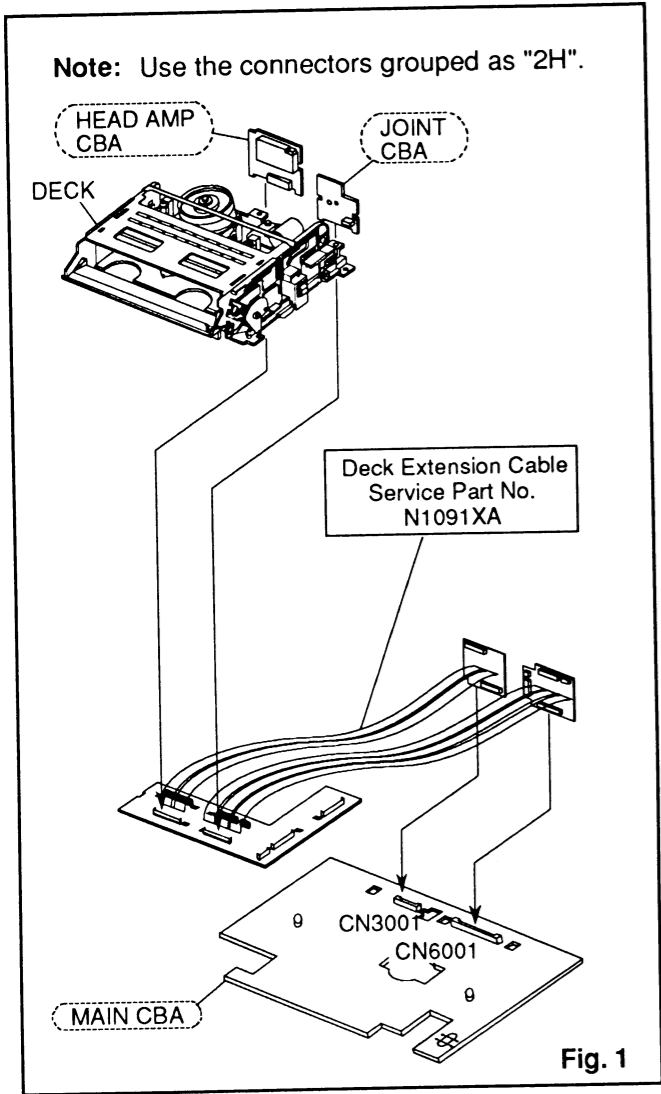
#### Correct



PREPARATION FOR SERVICING

How to use Deck Extension Cable

- (1) Remove the Deck Mechanism Assembly. If needed, remove the Main CBA from the chassis.
- (2) Use the Deck Extension Cable to connect the Deck Mechanism Assembly to the Main CBA. (Deck Extension Cable: N1091XA)



How to Enter the Service Mode

**Note:** When the unit is set in the service mode, the whole display will keep blinking.

About Optical Sensors

Caution:

An optical sensor system is used for the Tape Start and End Sensors on this equipment. Carefully read and follow the instructions below. Otherwise the unit may operate unexpectedly.

What to do for preparation

After plugging in the unit, connect J2 (SENSOR INHIBITION) to J1 (GROUND). This will stop the function of Tape Start and End Sensors. (If these TPs are connected before plugging in the unit, the function of the sensors will stay valid.)

Bring a tape to the tape inlet of the Deck Mechanism Assembly and press the PLAY button. The tape will be loaded into the Deck Mechanism Assembly.

**Note:** Because the Tape End Sensors are inactive, do not run a tape all the way to the start or the end of the tape to avoid tape damage.

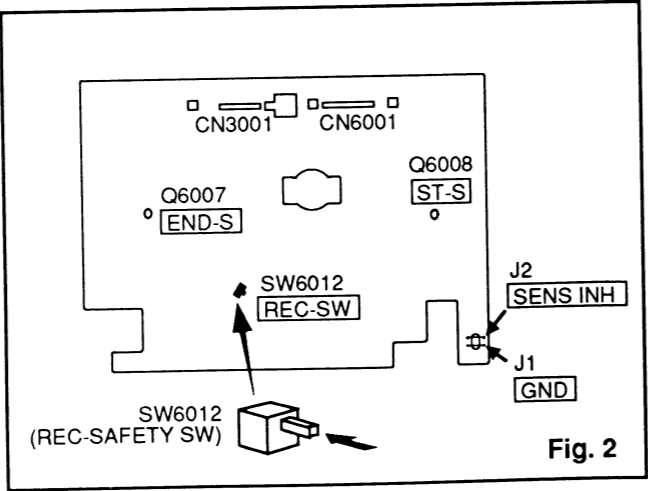
About REC-Safety Switch

Caution:

The REC-Safety Switch is directly mounted on the Main CBA. When the Deck Mechanism Assembly is removed from the Main CBA for servicing, this switch does not work automatically.

What to do for preparation

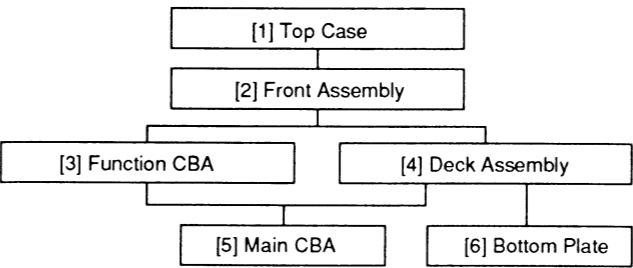
In order to record, press the Rec button while pushing REC-SAFETY SW on the Main CBA.



CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route, and dress the cables as they were.



Disassembly Method

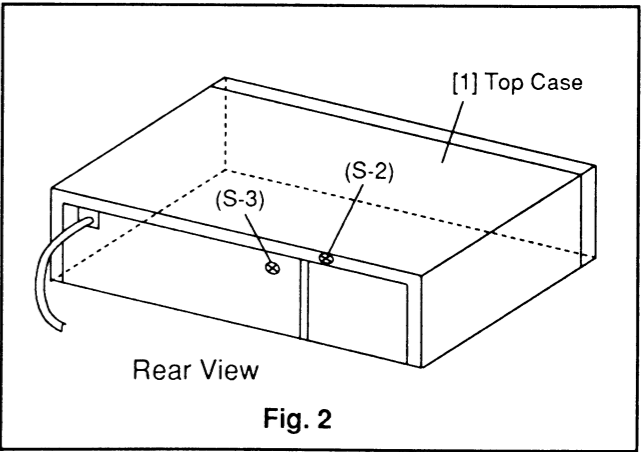
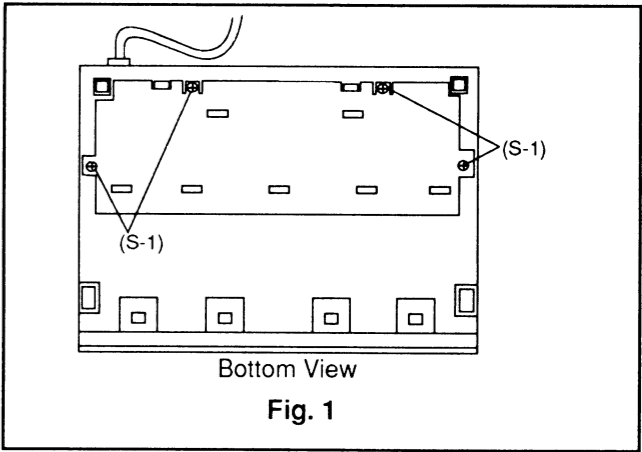
ID/ LOC. No.	PART	REMOVAL		
		Fig. No.	REMOVE/ *UNHOOK/UNLOCK/ RELEASE/UNPLUG/ DESOLDER	Note
[1]	Top Case	1, 2	4(S-1), (S-2)	-
[2]	Front Assembly	3, 4	*8(L-1), Deck Holder	1, 2
[3]	Function CBA	5	*2(L-2), (CN6001)	3
[4]	Deck Assembly	2, 6	(S-3), 5(S-4) Dew Sensor (CN2901, CN3501)	4
[5]	Main CBA	7	*4(L-3)	5
[6]	Bottom Plate	8	*2(L-4)	6

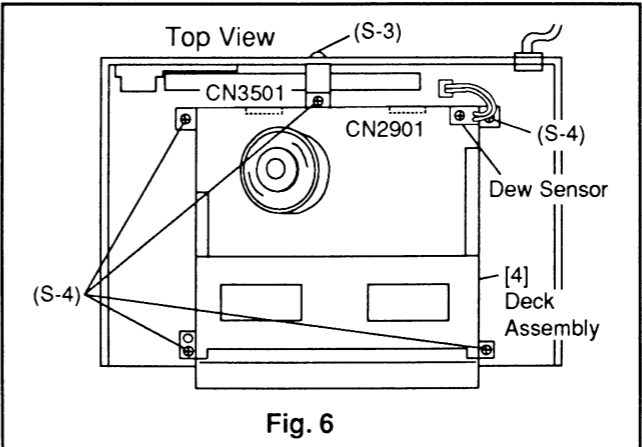
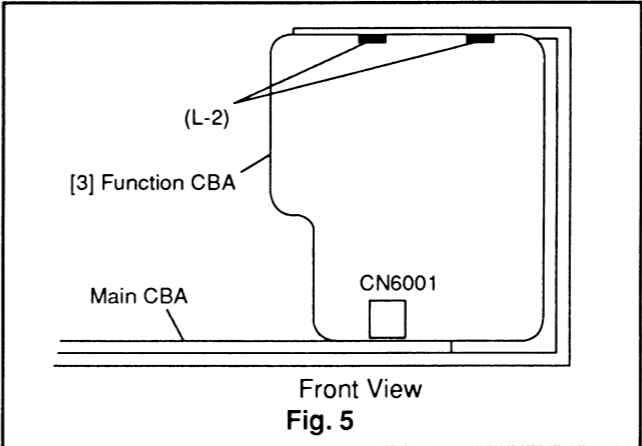
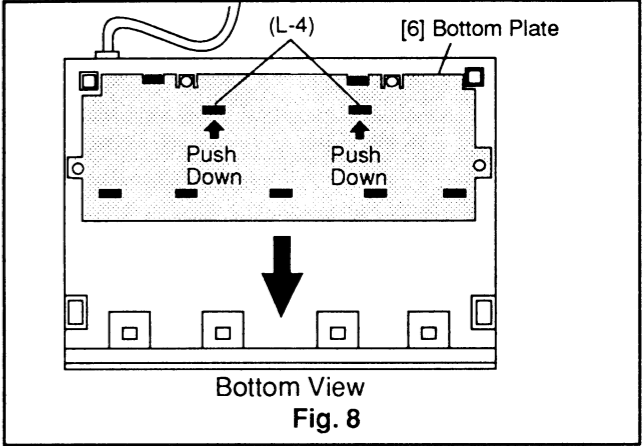
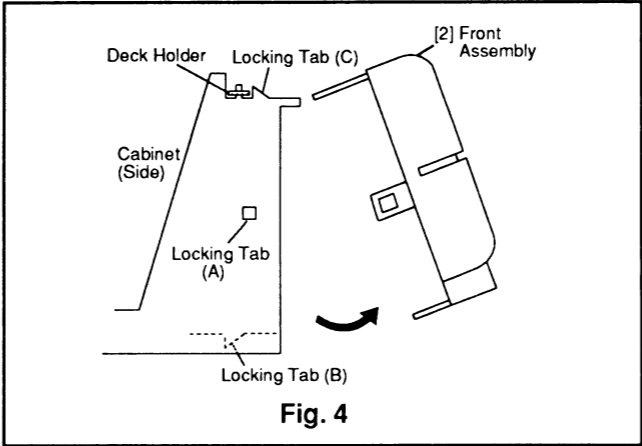
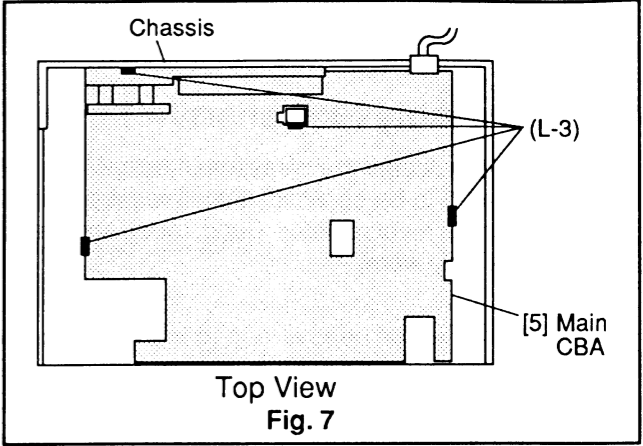
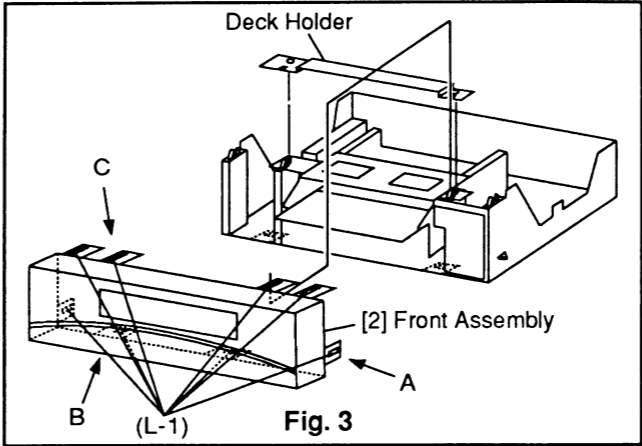
- ①: Identification (location) No. of parts in the figures
- ②: Name of the part
- ③: Figure Number
- ④: Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.  
P=Spring, L=Locking Tab, S=Screw, CN=Connector  
\*=Unhook, Unlock, Release, Unplug, or Desolder  
e.g. 2(S-2) = two Screws (S-2),  
2(L-2) = two Locking Tabs (L-2)
- ⑤: Refer to "Reference Notes".

Reference Notes

**CAUTION** Locking Tabs (L-1) are fragile. Be careful not to break them.

- 1. Release 8 Locking Tabs (L-1). To do this, first release Locking Tab (A) on each side, then two Locking Tabs (B) at the bottom, and then four Locking Tabs (C) at the top. (Fig. 3, 4)
- 2. Remove Deck Holder. (Fig. 3)
- 3. Release 2 Locking Tabs (L-2). Disconnect Connector (CN6001) to remove Function CBA. Hold Main CBA while pulling up Function CBA. (Fig. 5)
- 4. Remove Screw (S-3) and 5 Screws (S-4). Disconnect the connector of Dew Sensor from Main CBA. Then slowly lift Deck Assembly up. Lifting Deck Assembly disconnects 2 Connectors (CN2901, CN3501). (Fig. 2, 6)
- 5. Release 4 Locking Tabs (L-3) as you lift Main CBA. (Fig. 7)
- 6. Slide Bottom Plate in the direction of the bigger arrow while pressing down 2 Locking Tabs (L-4). (Fig. 8)



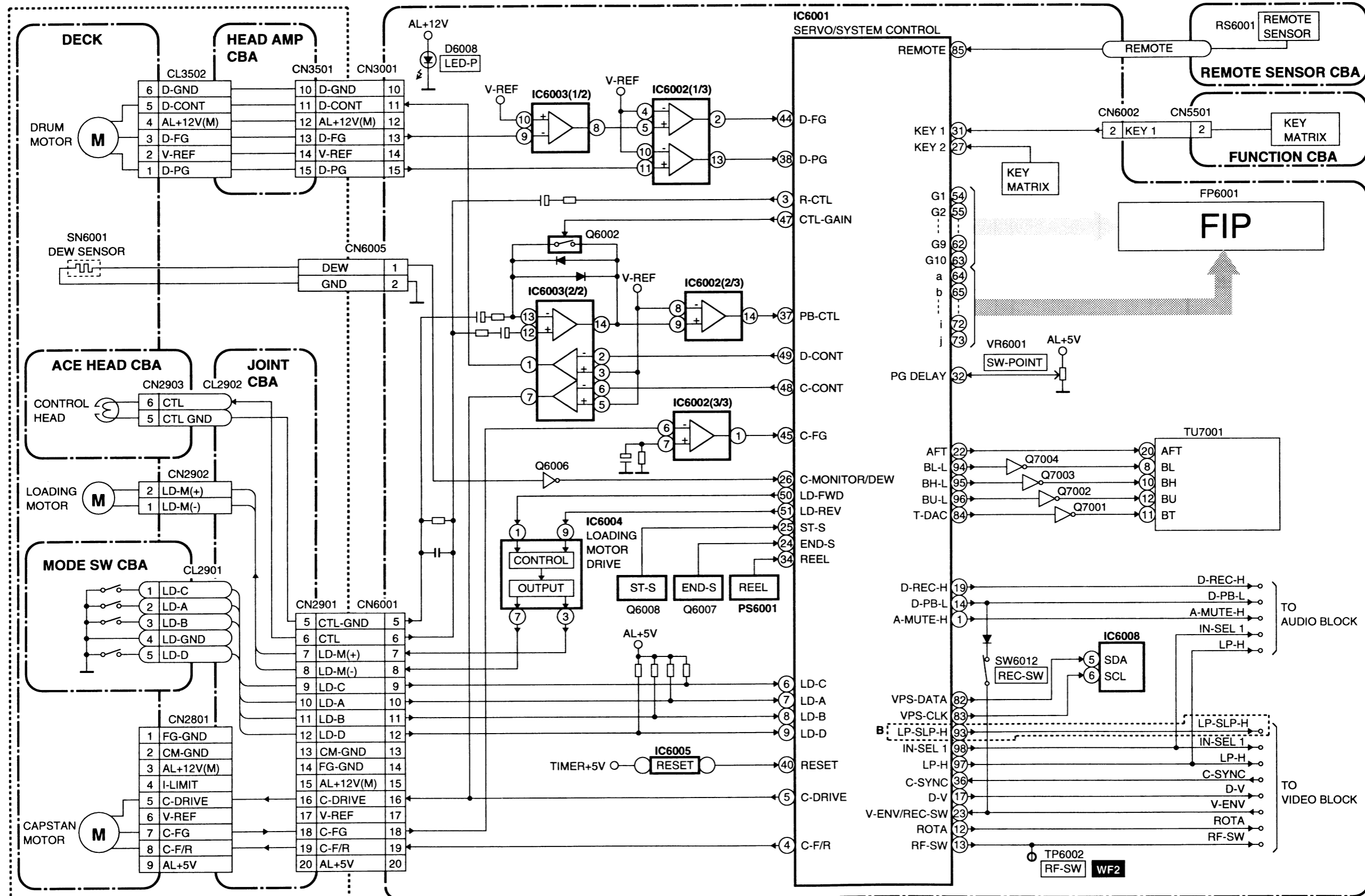


## BLOCK DIAGRAMS

### Comparison Charts of Models and Marks.

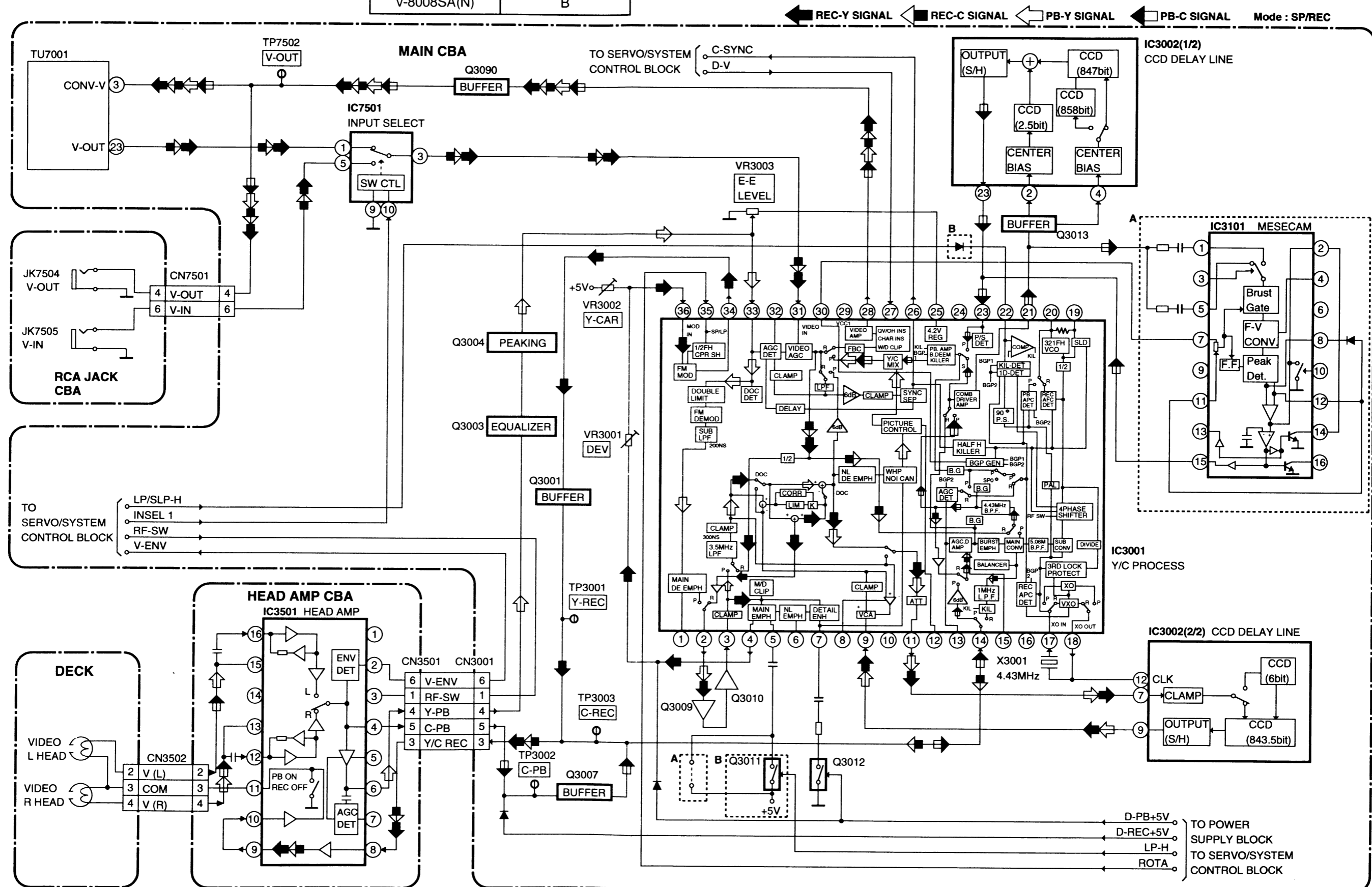
### BLOCK DIAGRAM FOR SECTION 2 (DECK MECHANISM)

MODEL NO.	MARK
V-8008CM(N)	A
V-8008SA(N)	B

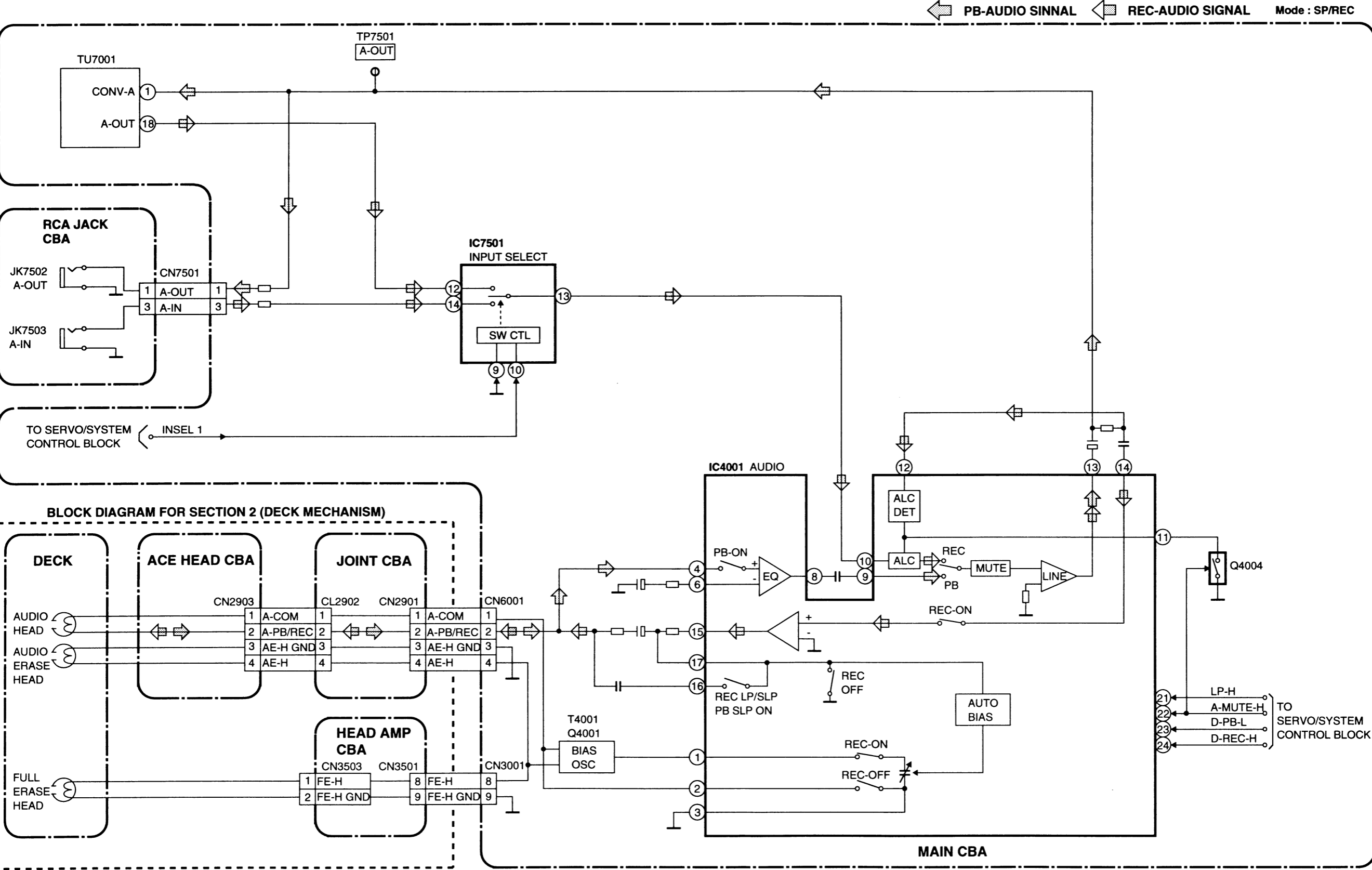


## Video Block Diagram

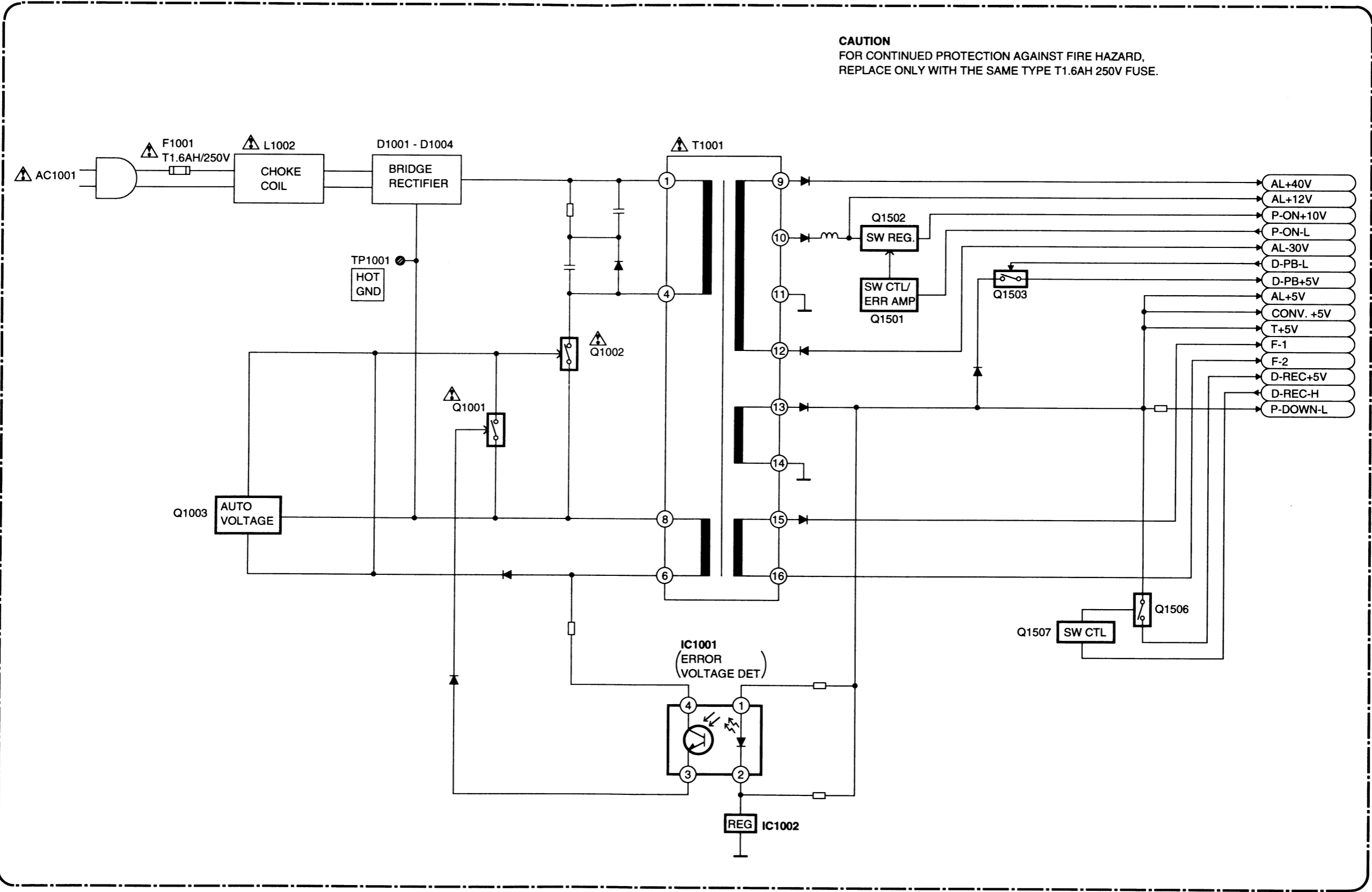
MODEL NO.	MARK
V-8008CM(N)	A
V-8008SA(N)	B



Audio Block Diagram



Power Supply Block Diagram



# ELECTRICAL ADJUSTMENT INSTRUCTIONS

**General Note:** "CBA" is an abbreviation for "Circuit Board Assembly".

## Notes:

1. Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to do these adjustments only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.
2. To perform these alignment / confirmation procedures, make sure that the tracking control is set in the center position: Press both CHANNEL "UP" and "DOWN" buttons at the same time. ( on VCR only )

## Test Equipment Required

1. Oscilloscope: Dual-trace with 10:1 probe, V-Range: 0.001~50V/Div., F-Frange: AC~DC-20MHz
2. PAL Pattern Generator (color bar with 100% white)
3. Alignment Tape (F6-A, Blank Tape)
4. Spectrum Analyzer

## 1. Head Switching Position Adjustment

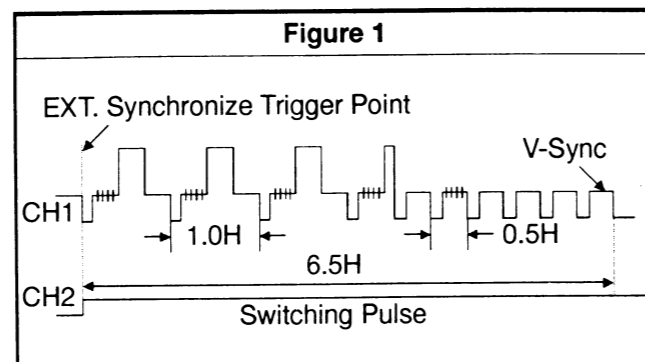
**Purpose:** To determine the Head Switching point during playback.

**Symptom of Misadjustment:** May cause Head Switching noise or vertical jitter in the picture.

Test Point	Adj. Point	Mode	Input
TP7502(V-OUT) TP6002(RF-SW) GND	VR6001 (Switching Point)	PLAY (SP)	----
Tape	Measurement Equipment	Spec.	
F6-A	Oscilloscope	6.5H±1H (412.7±60μs)	

Connections of Measurement Equipment			
--------------------------------------	--	--	--

The diagram illustrates the connection of the Main CBA to the Oscilloscope for measurement. The Main CBA is represented as a box with three terminals: TP7502, GND, and TP6002. The Oscilloscope is represented as a box with three input terminals: CH1, CH2, and Trig. (+). The connections are as follows: TP7502 is connected to CH1, GND is connected to CH2, and TP6002 is connected to Trig. (+). The connections are shown using lines and symbols for ground and signal paths.



## Reference Note:

TP6002, TP7502, VR6001: MAIN CBA

1. Play back the test tape and adjust VR6001 so that the V-sync front edge of the CH1 video output waveform is out the 6.5H(412.7µs) delayed position from the rising edge of the CH2 head switching pulse waveform.

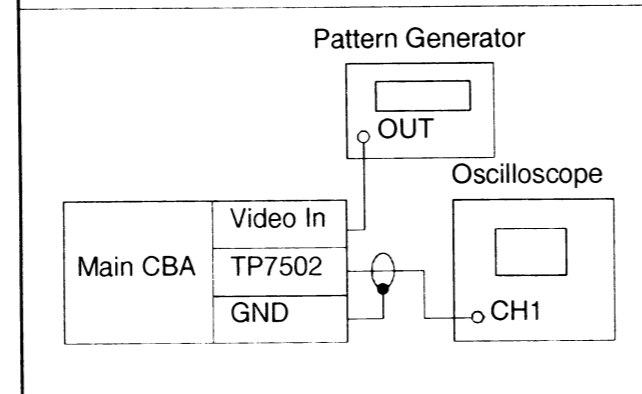
## 2. V-Out Level Adjustment

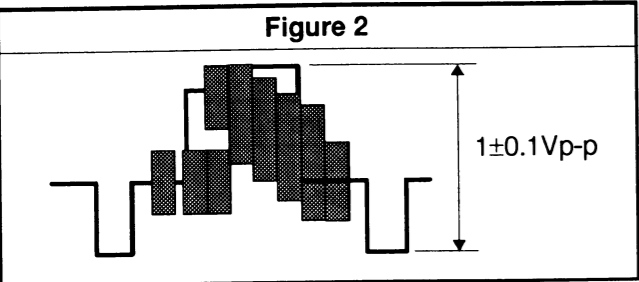
**Purpose:** To set optimum luminance video out level.

**Symptom of Misadjustment:** If the video out level is too high, The TV may overload. If the level is too low, The S/N ratio deteriorates.

Test Point	Adj. Point	Mode	Input
TP7502 (V-OUT) GND	VR3003 (E-E LEVEL)	E-E	Color Bar Signal with 100% white
Tape	Measurement Equipment	Spec.	
----	Pattern Generator Oscilloscope	1±0.1Vp-p	

### Connections of Measurement Equipment





**Reference Notes:**

TP7502, VR3003 : MAIN CBA

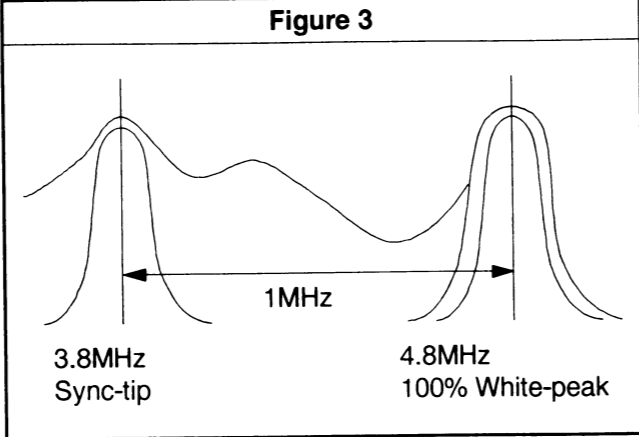
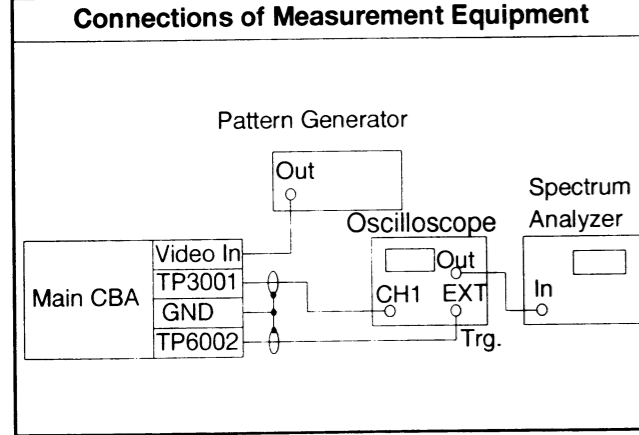
1. Input the color bar signal with window 100% white to video input.
2. Adjust VR3003 so that the video level becomes 1±0.1Vp-p. (Connected to TV)

### 3. FM Carrier Deviation Adjustment

**Purpose:** To align FM carrier deviation.

**Symptom of Misadjustment:** If the deviation is not correct, abnormal contrast of light and dark on the picture may be seen.  
If the carrier deviation is not correct, Beats appear on the picture.

Test Point	Adjustment Point	Mode	Input
TP3001 (Y-REC) TP6002 (RF-SW)	VR3001 (Deviation) VR3002 (Carrier)	REC. (SP)	Color Bar with 100% white
Tape	Measurement Equipment	Spec.	
Blank Tape	Frequency Counter	Sync-tip 3.8±0.1MHz 100%white peak 4.8±0.1MHz	



**Reference Notes:**

TP3001, TP6002, VR3001, VR3002 : MAIN CBA

**Reference Notes:**

1. Input color bar signal with 100% white to video input.
2. Adjust Sync-tip to 3.8MHz± 0.1MHz by VR3001, White-peak for 4.8MHz±0.1MHz by VR3002.

## SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

### Standard Notes

#### WARNING

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark "△" in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

#### Capacitor Temperature Markings

Mark	Capacity change rate	Standard temperature	Temperature range
(B)	±10%	20°C	-25~+85°C
(F)	+30 -80%	20°C	-25~+85°C
(SR)	±15%	20°C	-25~+85°C
(Z)	+30 -80%	20°C	-10~+70°C

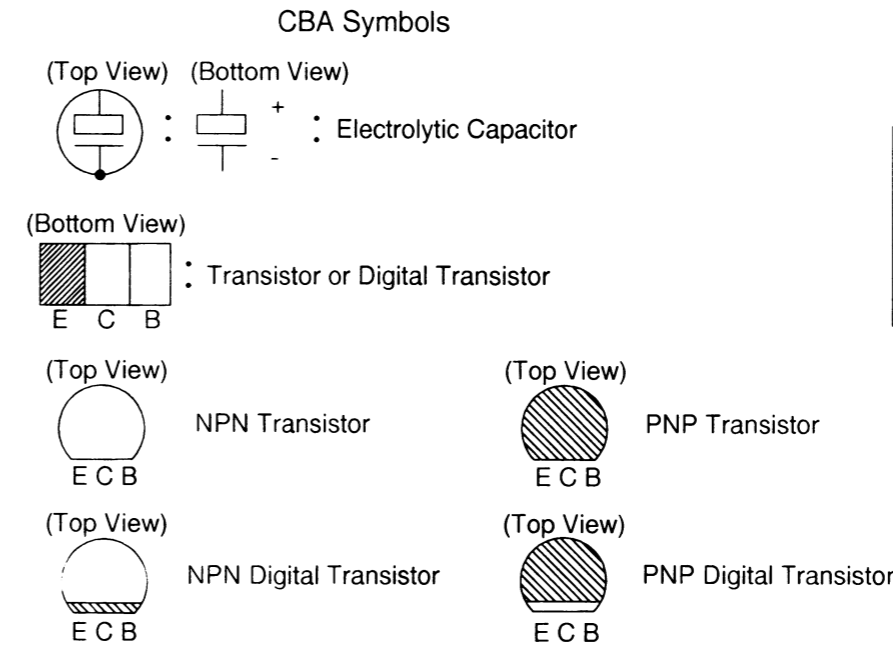
### Note:

- 1 Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
- 2 All resistance values are indicated in ohms (K=10<sup>3</sup>, M=10<sup>6</sup>).
- 3 Resistor wattages are 1/5W or 1/6W unless otherwise specified.
- 4 All capacitance values are indicated in μF (P=10<sup>-6</sup>μF).
- 5 All voltages are DC voltages unless otherwise specified.
- 6 Electrical parts such as capacitors, connectors, diodes, IC's, transistors, resistors, switches, and fuses are identified by four digits. The first two digits are not shown for each component. In each block of the diagram, there is a note such as shown below to indicate these abbreviated two digits.

#### TUNER BLOCK SYMBOL NO. 70\*\*

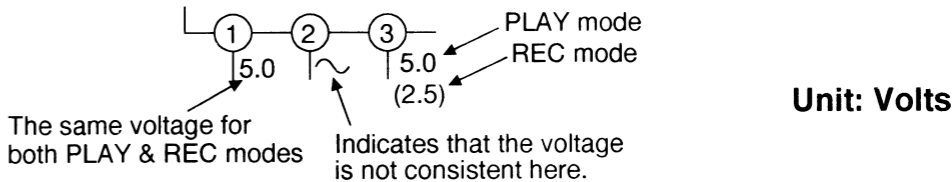
Example: "C08" in this "TUNER BLOCK" is C7008.

Capacitors and transistors are represented by the following symbols.



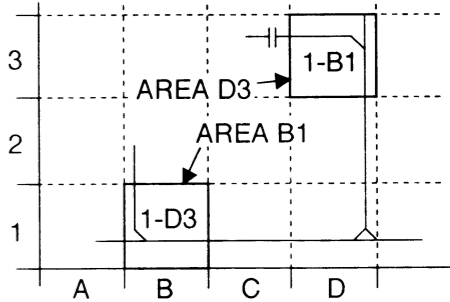
LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. **CAUTION:**  
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
2. **CAUTION:**  
Voltage selectable power supply circuit is used in this unit.  
If Main Fuse (F01) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.
3. **Note:**  
(1)Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.  
(2)To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.
4. Wire Connectors  
(1)Prefix symbol "CN" means "connector." (Can disconnect and reconnect)  
(2)Prefix symbol "CL" means "wire-solder holes of the PCB." (Wire is soldered directly.)
5. Note: Mark "•" is a leadless (chip) component.
6. Mode: SP/REC
7. Voltage indications for PLAY and REC modes on the Schematics are as shown below:



8. How to read converged lines

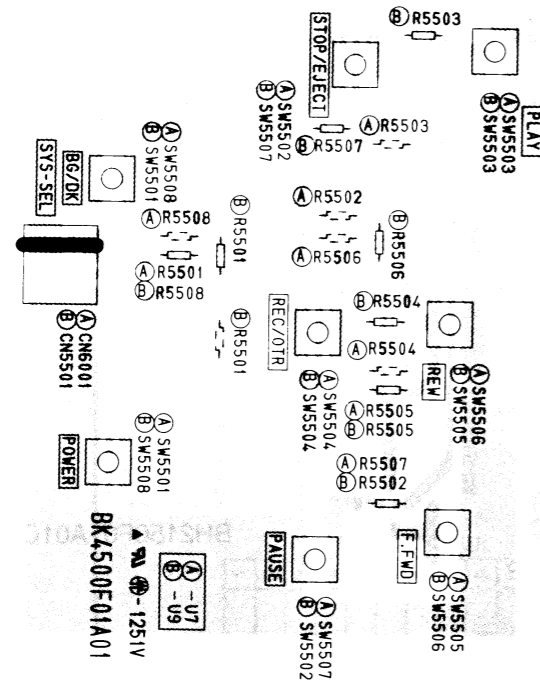
- 1-D3
- Distinction Area
- Line Number  
(1 to 3 digits)
- Examples:
- "1-D3" means that line number "1" goes to area "D3".
  - "1-B1" means that line number "1" goes to area "B1".



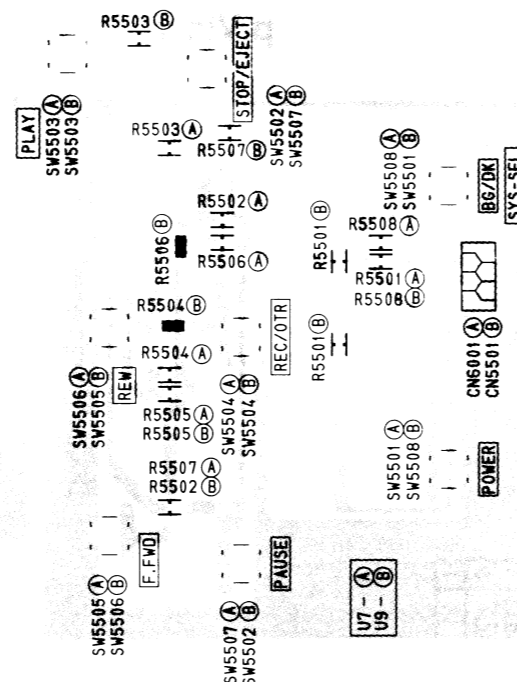
9. Test Point Information

- ⊙ : Indicates a test point with a jumper wire across a hole in the PCB.
- : Used to indicate a test point with a component lead on foil side.
- ⊗ : Used to indicate a test point with no test pin.
- : Used to indicate a test point with a test pin.

**Function CBA Top View**  
(Serial No. H42410001 ~ H42413500)

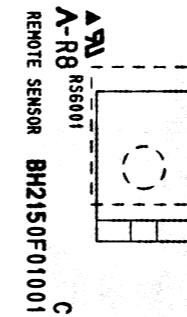


**Function CBA Bottom View**  
(Serial No. H42410001 ~ H42413500)



BK4500F01A01

**Remote Sensor CBA Top View**

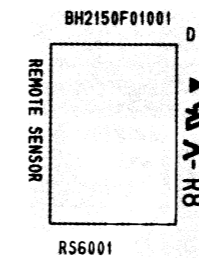


**Remote Sensor CBA Bottom View**

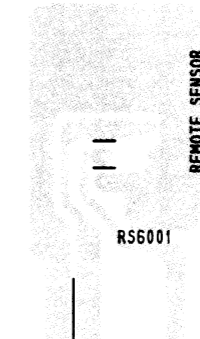


BH2150F01001C

**Remote Sensor CBA Top View**



**Remote Sensor CBA Bottom View**



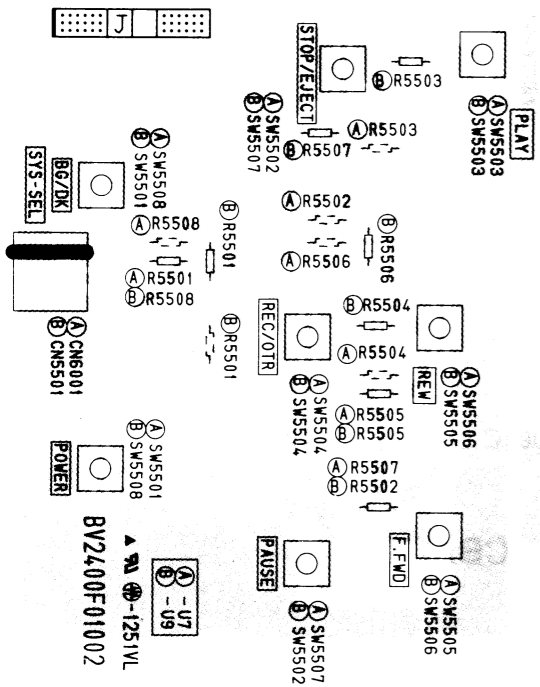
BH2150F01001D

**EXCHANGEABILITY OF REMOTE SENSOR CBA  
FOR PART NO. OF REMOTE SENSOR**

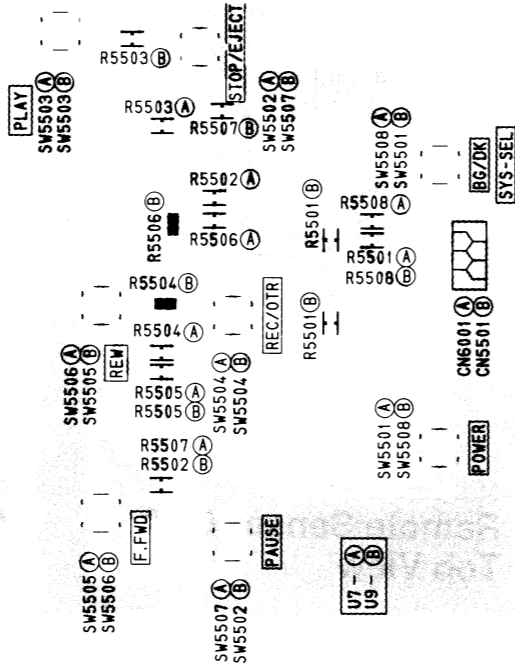
RS6001(Remote Sensor)		Remote Sensor CBA No.	
Part No.	Maker No.	BH2150 F01001C	BH2150 F01001D
USESJRSKK008	HC-278N	×	○
USESJRSSH009	GP1U582X	×	○
USESJRSJR004	NJH32H367A	○	×

Note:CBA No.'s are shown in Remote Sensor Top/Bottom View.

Function CBA Top View  
(Serial No. H42413501 ~ )

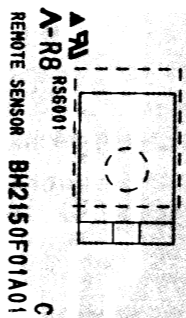


Function CBA Bottom View  
(Serial No. H42413501 ~ )

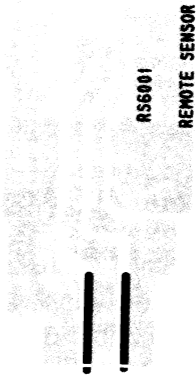


BV2400F01002

Remote Sensor CBA  
Top View



Remote Sensor CBA  
Bottom View



BH2150F01A01C

Remote Sensor CBA  
Top View



Remote Sensor CBA  
Bottom View



BH2150F01A01D

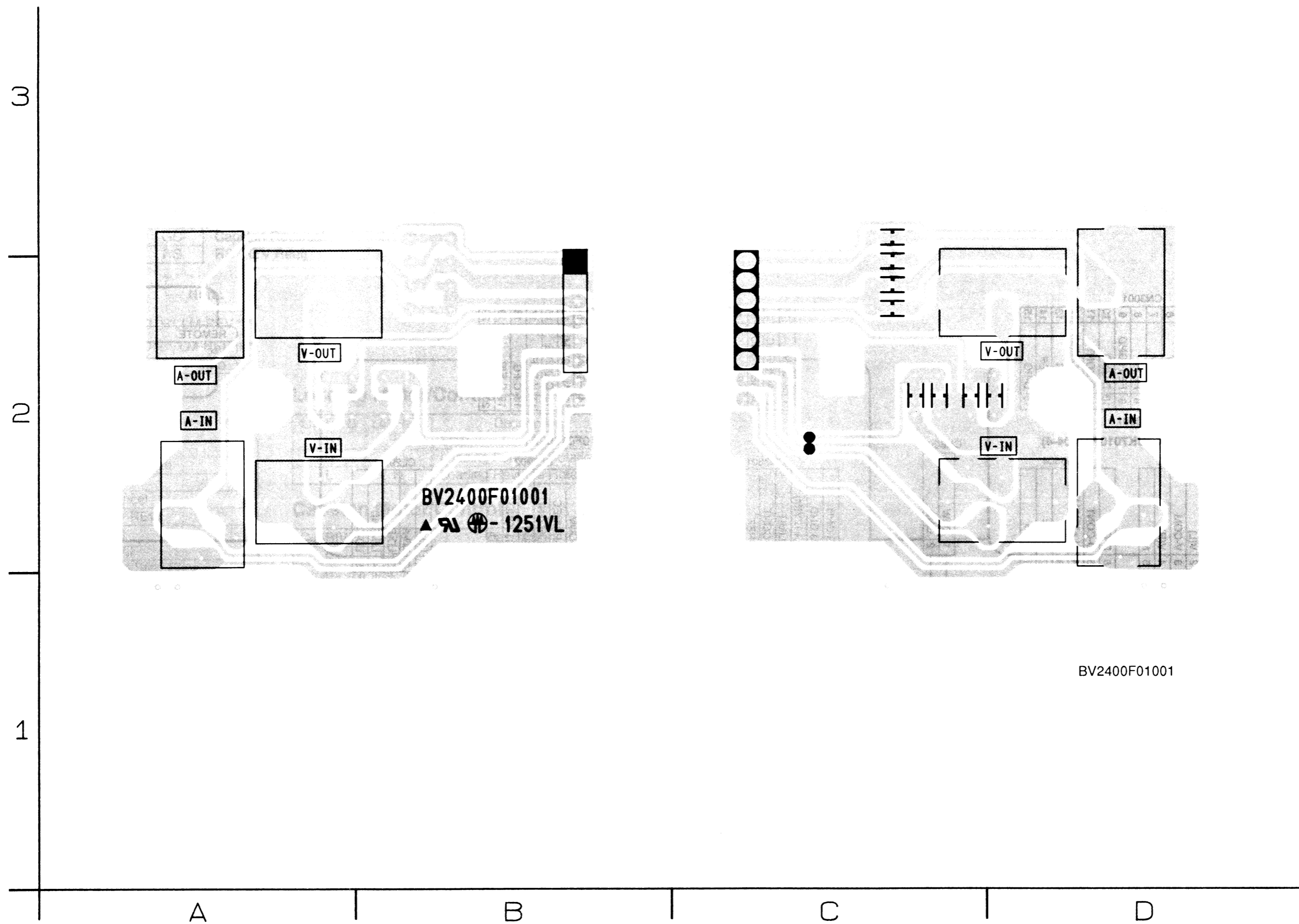
EXCHANGEABILITY OF REMOTE SENSOR CBA  
FOR PART NO. OF REMOTE SENSOR.

RS6001(Remote Sensor)		Remote Sensor CBA No.	
Part No.	Maker No.	BH2150F01A01C	BH2150F01A01D
USESJRSHK008	HC-278N	×	○
USESJRSSH009	GP1U582X	×	○
USESJRSJR004	NJH32H367A	○	×

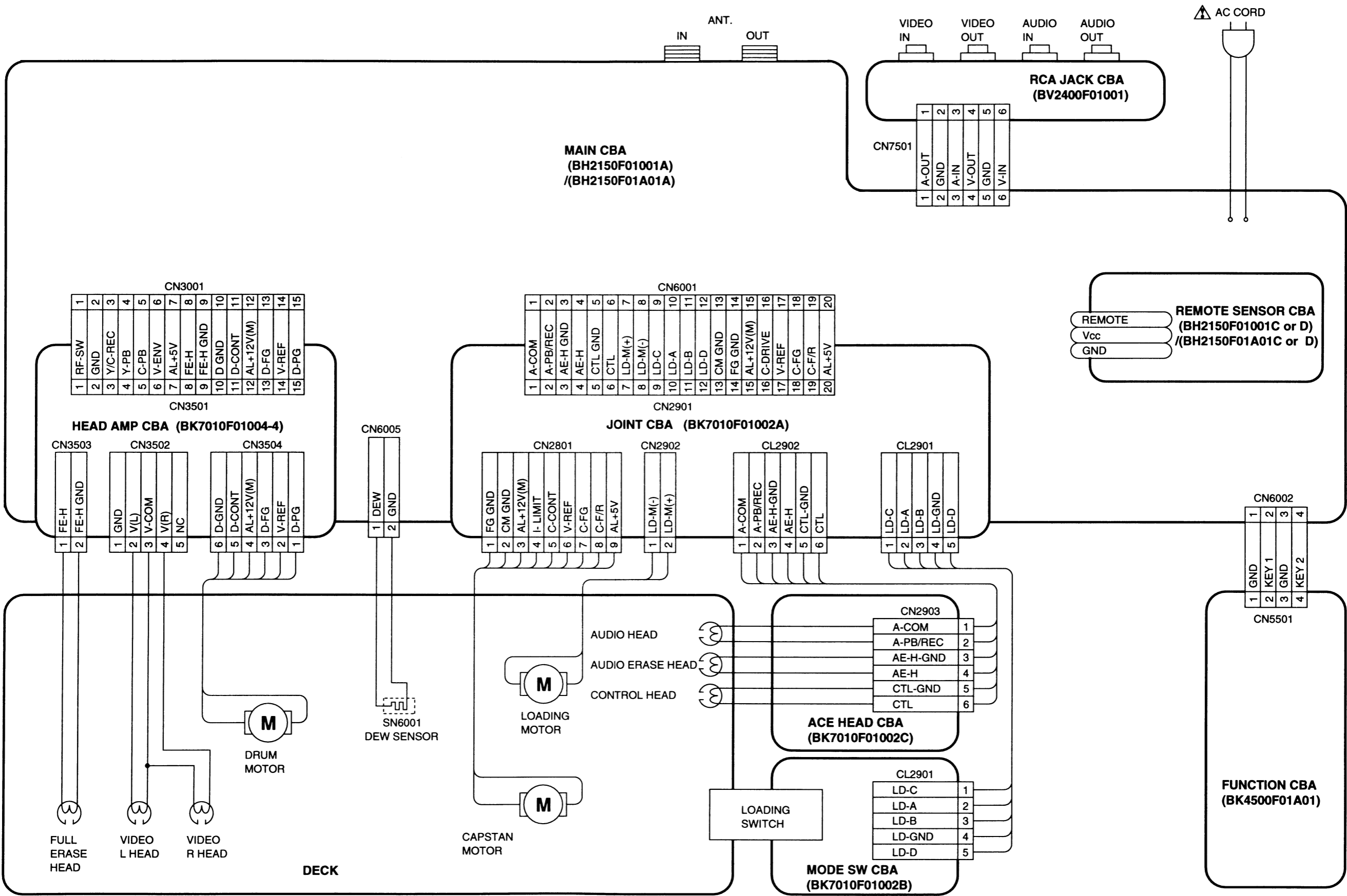
Note:CBA No.'s are shown in Remote Sensor Top/Bottom View.

RCA Jack CBA Top View

RCA Jack CBA Bottom View



# WIRING DIAGRAM



SYSTEM CONTROL TIMING CHARTS

Mode SW : LD-A/LD-B/LD-C/LD-D

LD-SW				Symbol	
LD-A	LD-B	LD-C	LD-D		
L	H	H	H	EJ	Eject
H	H	H	H	CL	REW Reel
L	L	H	H	SB	Stop (B)
H	L	H	H	TL	Brake Cancel
H	L	L	H	FB	
H	H	L	H	SF	FF / REW, Stop (A)
H	H	L	L	AU	
H	H	H	L	AL	Play / REC (FS Pause 2 Head Still)
H	L	H	L	SS	4 Head Slow / Still
H	H	H	H	GC	Capstan Reversal
L	H	H	L	RS	RS (REV Reel)

Note:

EJ → RS : Loading FWD (LM-FWD "H", LM-REV "L")  
RS → EJ : Loading REV (LM-FWD "L", LM-REV "H")  
Stop (A) = Loading  
Stop (B) = Unloading

Note :

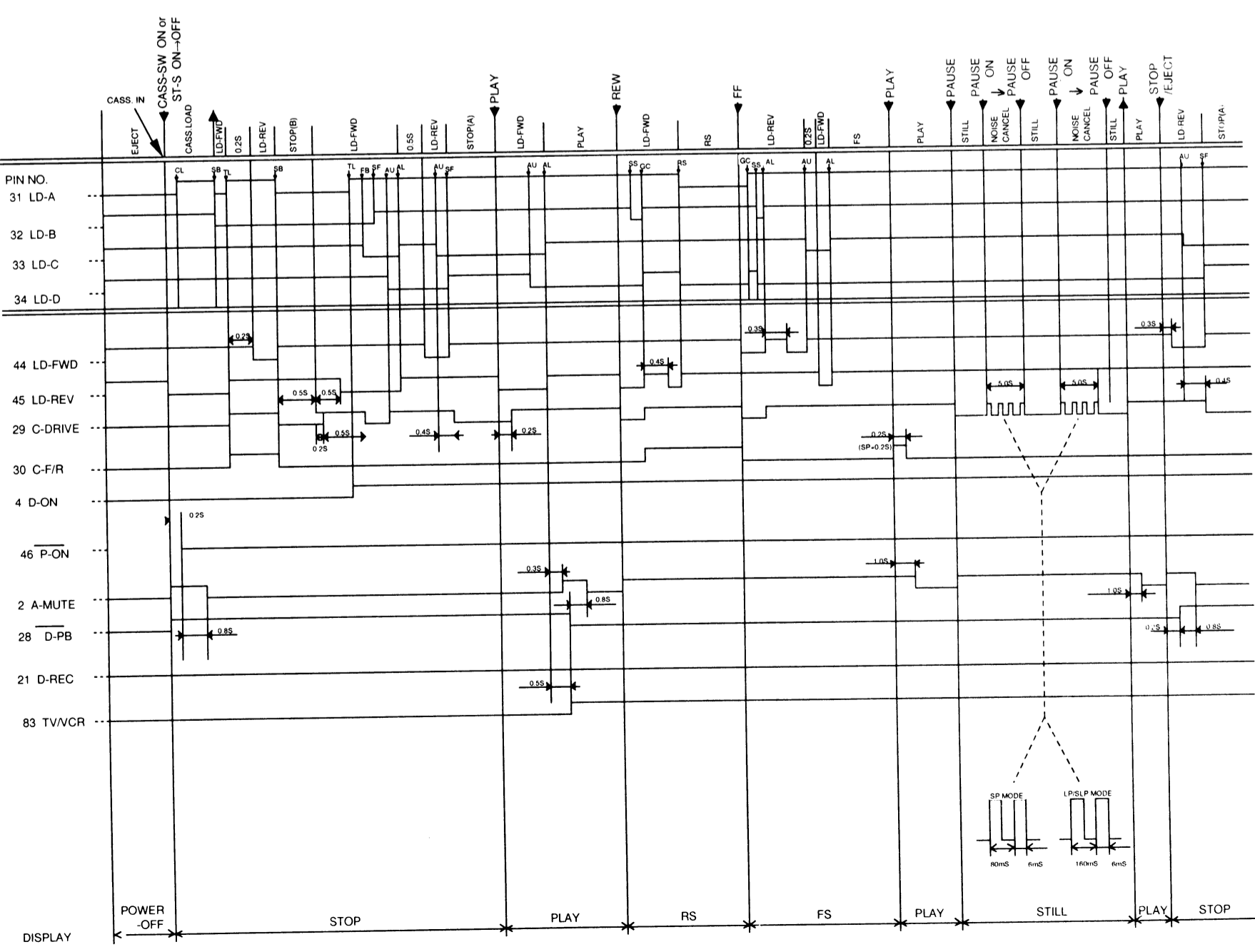
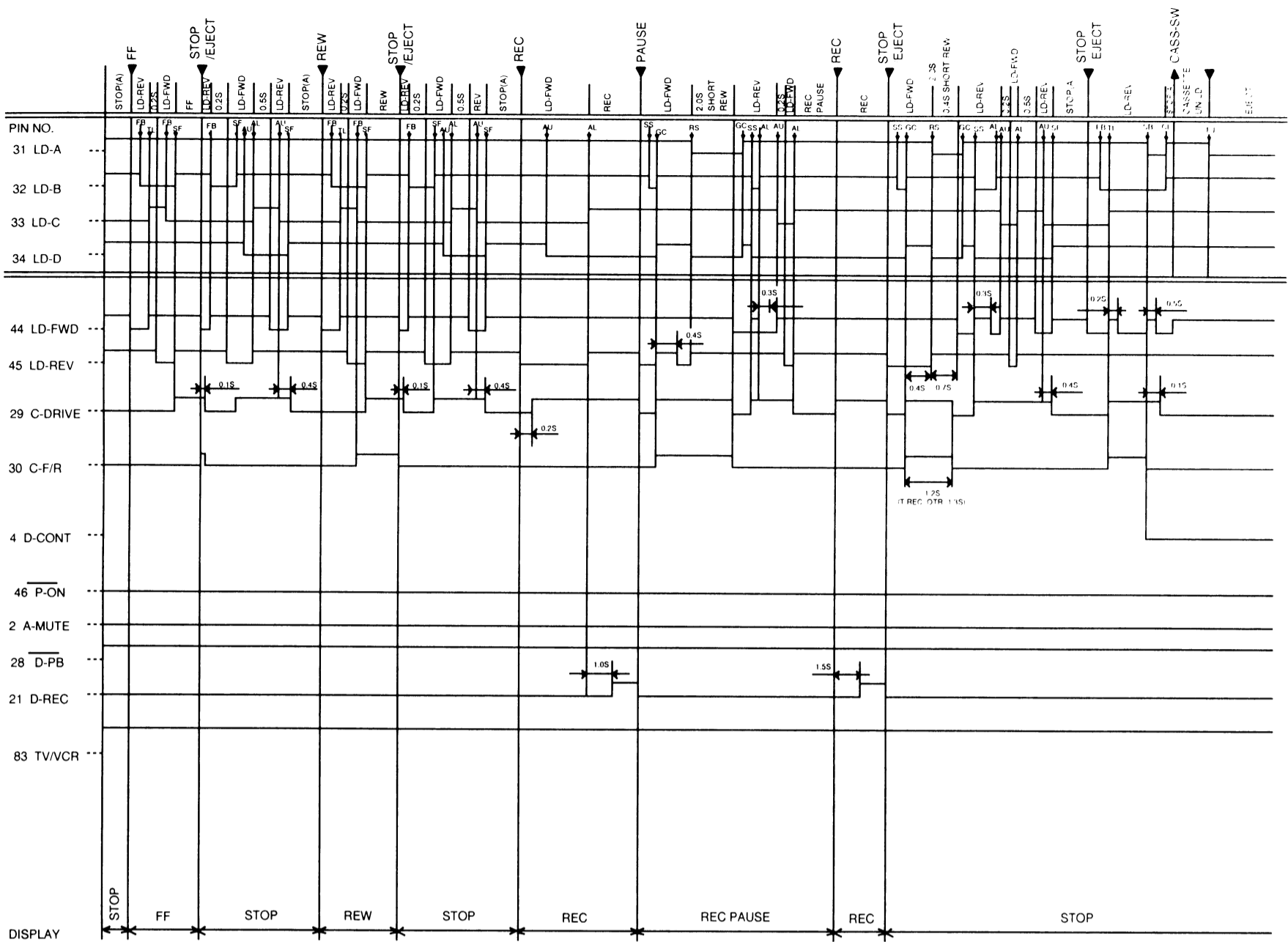
Symbol	Loading Status
EJ	Eject
CL	Eject ~ Loading Completion
SB	REW ~ Stop(B)
TL	Stop(B) ~ Brake Cancel
FB	Brake Cancel ~ FF / REW
SF	FF / REW ~ Stop(A)
AU	Stop(A) ~ Play / REC
AL	Play / REC ~ 4 Head Still / Slow
SS	4 Head Still / Slow ~ Capstan Reversal
GC	Capstan Reversal ~ REW Reel
RS	REW

Loading Motor/Control

LM-FWD	LM-REV	Description
H	H	Stop
H	L	Loading Forward Rotation
L	H	Loading Reverse Rotation

Capstan Motor/Control

C-DRIVE	C-F/R	Description
L	L/H	Stop, The brake is not applied.
H	L	Capstan, Reel Forward Rotation
H	H	Capstan, Reel Reverse Rotation



# IC PIN FUNCTION DESCRIPTION

## IC6001 ( SERVO / SYSTEM CONTROL IC )

"H" ≥ 4.5V, "L" ≤ 0V

Pin No.	IN/ OUT	Signal Name	Function	Active Level
1	OUT	A-MUTE	Audio Mute Output (Mute="H")	H
2	OUT	LP/SLP-PB	Special Play back Tape Speed LP or SLP mode = "H" output	H
3	OUT	REC-CTL	Capstan Motor Control Pulse Input at Rec Mode	H/L
4	OUT	C-F/R	Capstan Motor FWD/REV Control Signal (Forward="L"/Reverse="H")	H/L
5	OUT	C-DRIVE	Capstan Motor Drive Signal Output (Rotation="H"/Stop = "L")	H
6	IN	LD-C	Loading Position Detector	H/L
7	IN	LD-A	Loading Position Detector	H/L
8	IN	LD-B	Loading Position Detector	H/L
9	IN	LD-D	Loading Position Detector	H/L
10	OUT	N.U.	Not Used	—
11	OUT	N.U.	Not Used	—
12	OUT	ROTA	Color Phase Rotary Changeover Signal	H/L
13	OUT	RF-SW	Video Head Switching Pulse	H/L
14	OUT	D-PB-L	Video/Audio Instruction Signal	L
15	—	N.C.	Not Used	—
16	—	N.C.	Not Used	—
17	OUT	D-V/SYNC	Dummy V-Sync Output	H

Pin No.	IN/ OUT	Signal Name	Function	Active Level
18	OUT	GRAY-L	"L" Output at NOSignal	L
19	OUT	D-REC-H	Video/Audio Recording Instruction Signal (Record="H")	H
20	OUT	P-ON-L	Power-ON Control Signal	L
21	OUT	LED-P	Pulse Signal for ST/END Sensor	H/L
22	IN	AFT	Tuner AFC Voltage Signal Input	A/D
23	IN	V-ENV / REC-SW	Video DC Envelope Voltage Input /Recording Safety SW Detect	A/D
24	IN	END-S	Tape End Position Detect	A/D
25	IN	ST-S	Tape Start Position Detect	A/D
26	IN	C-MONITOR /DEW	Capstan Motor Control Voltage Monitor Input/DEW Sensor Position Detect Signal Input	A/D
27	IN	KEY IN-2/ CAS-SW	A/D Key Data Signal Input	A/D
28	—	VREF	A VREF A/D Converter Reference Voltage Input (All: 5V)	—
29	—	Vss	A Vss A/D Converter Power Supply (GND)	—
30	—	A VDD	A Vss A/D Converter Power Supply (Back Up 5V)	—
31	IN	KEY1	A/D Key Data Signal Input	A/D
32	IN	PG-DELAY /TEST	RF-SW Signal Delay Adjust Voltage Input/Test	A/D
33	IN	S-REEL	Not Used	A/D

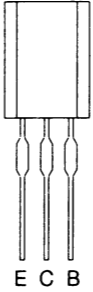
Pin No.	IN/ OUT	Signal Name	Function	Active Level
34	IN	T-REEL	Take Up Reel Rotation Signal	A/D
35	IN	P-DOWN-L	Power Down Detection Input	L
36	IN	C-SYNC	Composite Sync Signal Input	PULSE
37	IN	PB-CTL	Capstan Motor Control Pulse Input at Playback Mode	PULSE
38	IN	D-PG	Drum Pulse Generator Input	PULSE
39	—	GND	GND	—
40	IN	RESET	System Reset Signal (Usually="H"/Reset="L")	L
41	—	Vss	Vss	—
42	—	X2	MAIN Clock 12 MHz (OUT)	—
43	—	X1	MAIN Clock 12 MHz (IN)	—
44	IN	D-FG	Drum Frequency Generator Input	PULSE
45	IN	C-FG	Capstan Frequency Generator Signal Input	PULSE
46	—	N.C.	—	—
47	OUT	CTL-GAIN	CTL Amp Gain Switching Signal	H/L
48	OUT	C-CONT	Capstan Motor Control Signal	PWM
49	OUT	D-CONT	Drum Motor Control Signal	PWM
50	OUT	LM-FWD	Loading Motor Forward Control Output	H
51	OUT	LM-REV	Loading Motor Reverse Control Output	H
52	—	N.C.	—	—
53	—	N.U.	Not Used	—
54	OUT	G1	Display Digit Output	H
55	OUT	G2	Display Digit Output	H
56	OUT	G3	Display Digit Output	H
57	OUT	G4	Display Digit Output	H
58	OUT	G5	Display Digit Output	H

Pin No.	IN/ OUT	Signal Name	Function	Active Level
59	OUT	G6	Display Digit Output	H
60	OUT	G7	Display Digit Output	H
61	OUT	G8	Display Digit Output	H
62	OUT	G9	Display Digit Output	H
63	OUT	G10	Display Digit Output	H
64	OUT	a	Display Segment Output	H
65	OUT	b	Display Segment Output	H
66	OUT	c	Display Segment Output	H
67	OUT	d	Display Segment Output	H
68	OUT	e	Display Segment Output	H
69	OUT	f	Display Segment Output	H
70	OUT	g	Display Segment Output	H
71	OUT	h	Display Segment Output	H
72	OUT	i	Display Segment Output	H
73	OUT	j	Display Segment Output	H
74	—	VPS-CHK	Not Used	—
75	—	N.U.	Not Used	—
76	—	SOFT-L	Not Used	—
77	—	N.U.	Not Used	—
78	—	-28V	-28V	—
79	OUT	N.U.	Not Used	—
80	OUT	N.U.	Not Used	—
81	OUT	N.U.	Not Used	—
82	IN/ OUT	VPS-DATA	VPS IC/MEMORY IC Control (Data)	H/L
83	OUT	VPS-CLK	VPS IC/MEMORY IC Control (Clock)	H/L

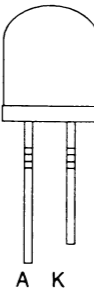
Pin No.	IN/OUT	Signal Name	Function	Active Level
84	OUT	T-DAC	Tuner Voltage Control PWM Output	—
85	IN	REMOTE	Remote Control Input Signal	L
86	—	X' TAL2	Sub Clock 32kHz(IN)	—
87	—	X' TAL1	Sub Clock 32kHz(OUT)	—
88	—	Vss	Vss	—
89	—	VDD	Back Up 5V (VDD)	—
90	—	Vpp	Back Up 5V	—
91	—	NC	Not Used	—
92	OUT	BG/DK	Not Used	—
93	IN	N.U.	Not Used	PULSE
94	OUT	BL-L	Output for Tuner Band Selection	L
95	OUT	BH-L	Output for Tuner Band Selection	L
96	OUT	BU-L	Output for Tuner Band Selection	L
97	OUT	LP-H	Tape Speed LP Mode= " H" Output	H
98	OUT	INSEL-1	Input Selector Control Signal 1	H/L
99	—	N.U.	Not Used	—
100	—	N.U.	Not Used	—

**NOTE :**  
Abbreviation for Active Level  
PWM ----- Pulse Wide Modulation  
A/D ----- Analog - Digital Converter

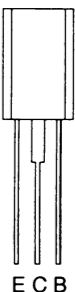
LEAD IDENTIFICATION



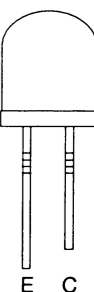
2SA608SP  
2SC536SP  
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2SC2839  
2SC4204  
KRC103M  
KRA103M  
2SC3193  
KRA109M  
2SA1346  
2SC3576




KRA101M  
KSR2205  
2SA1654  
KSR2203  
2SA1347  
KSR1203  
KTA1267  
KSA1175  
KTC3199  
KSR2785



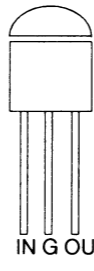
2SD1581  
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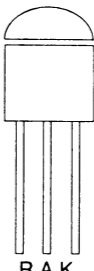
PT380F(B)



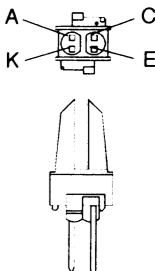
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2SC3866



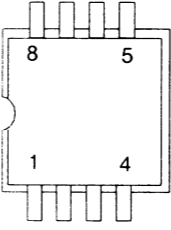
PST529H  
KIA4031P  
KIA7533Z



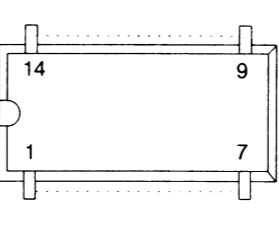
SID1K10CXM  
LN66A.FN  
IR940 IR4  
IR940 IR5



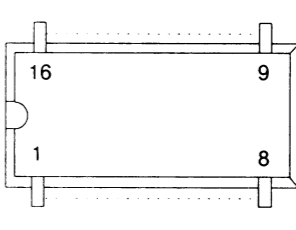
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GP1S38



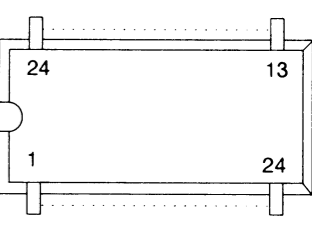
24LC01B/P  
ST24C01B1  
X24C01AP



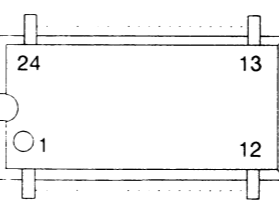
KA339  
KIA339  
KA324  
KIA324P



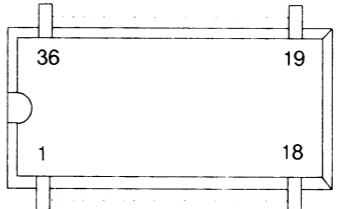
NJU4052BP  
μPD4052BC  
TC4052BP  
HEF4052BP



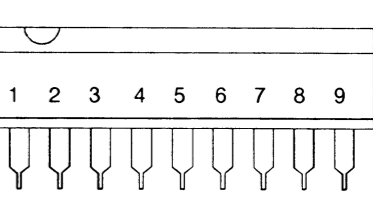
LA7286



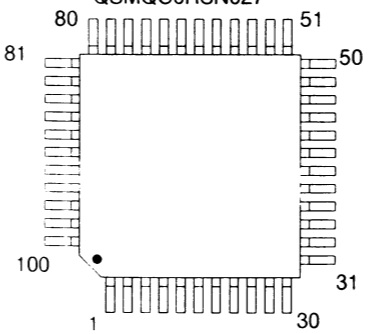
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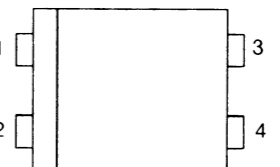
LA7347



TA7291S



QSMQA0RSN027  
QSMQB0RSN027  
QSMQC0RSN027



PC120F

**Note:**  
A: Anode  
K: Cathode  
E: Emitter  
C: Collector  
B: Base  
R: Reference

1-12-1

V2400LE

# DECK MECHANISM SECTION

## VIDEO CASSETTE RECORDER

### V-8008CM(N) / V-8008SA(N)

#### Sec. 2: Deck Mechanism Section

- Standard Maintenance
- Alignment for Mechanism
- Disassembly/Assembly of Mechanism
- Schematic Diagrams
- CBA' s

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Standard Maintenance.....	2-1-1
Service Fixtures and Tools.....	2-2-1
Mechanical Alignment Procedures .....	2-3-1
Disassembly / Assembly Procedures of Deck Mechanism .....	2-4-1
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STANDARD MAINTENANCE

Service Schedule of Components

H: Hours    ○: Check    ●: Change

Deck	Ref. No.	Parts Name	Periodic Service Schedule			
			1,000 H	2,000 H	3,000 H	4,000 H
	B2	Cylinder Assembly	○	●	○	●
	B3	Loading Motor Assembly			●	
	B6	Pinch Roller Arm Assembly		●		●
	B8	Pulley Assembly		●		●
	B21	Loading Belt		●		●
	B27	Band Brake Assembly		●		●
	B28	Main Brake S Assembly		●		●
	B29	Main Brake T Assembly		●		●
	B30	T Brake Arm Assembly		●		●
	B31	AC Head Assembly			●	
	B32	Reel Base Assembly			●	
	B37	Capstan Motor		●		●
	B52	Capstan Belt		●		●
	B54	Ground Brush Assembly			●	
	B73	FE Head			●	
	B86	F Brake Assembly		●		●
	B132	Clutch Assembly		●		●
	B133	Arm Idler Assembly		●		●

- Note:**
- 1. Clean all parts for the tape transport ( Upper Drum with Video Head / Pinch Roller / ACE Head / FE Head ) using 90% Isopropyl Alcohol.
  - 2. After cleaning the parts, do all DECK ADJUSTMENTS.
  - 3. For the reference numbers listed above, refer to Deck Exploded Views.

Cleaning

Cleaning of Video Head

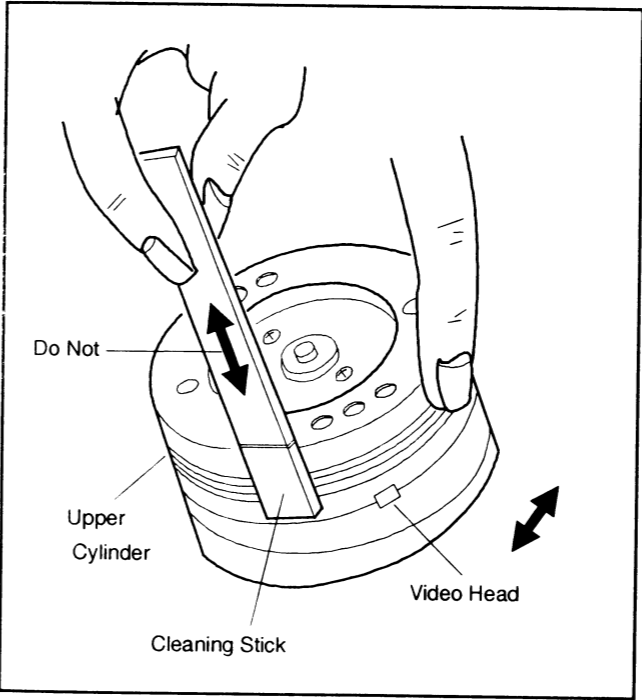
Clean the head with a head cleaning stick or chamois skin.

Procedure

- 1. Remove the top cabinet.
- 2. Put on a glove (thin type) to avoid touching the upper and lower drum with your bare hand.
- 3. Put a few drops of 90% Isopropyl alcohol on the head cleaning stick or on the chamois skin and, by slightly pressing it against the head tip, turn the upper drum to the right and to the left.

Notes:

- 1. The video head surface is made of very hard material, but since it is very thin, avoid cleaning it vertically.
- 2. Wait for the cleaned part to dry thoroughly before operating the unit.
- 3. Do not reuse a stained head cleaning stick or a stained chamois skin.



Cleaning of Audio Control Head

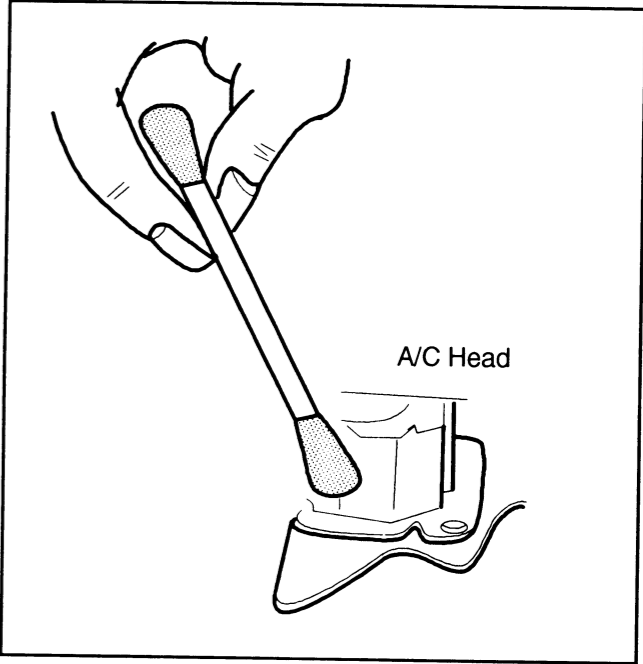
Clean the head with a cotton swab.

Procedure

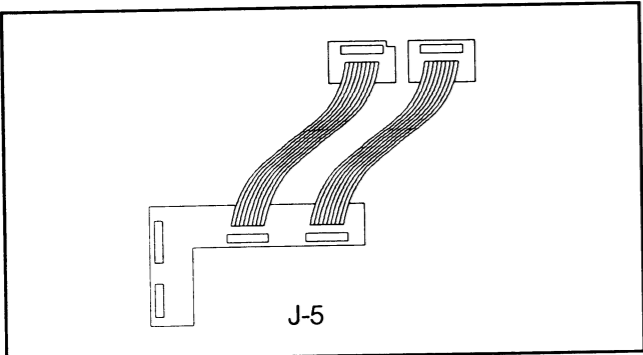
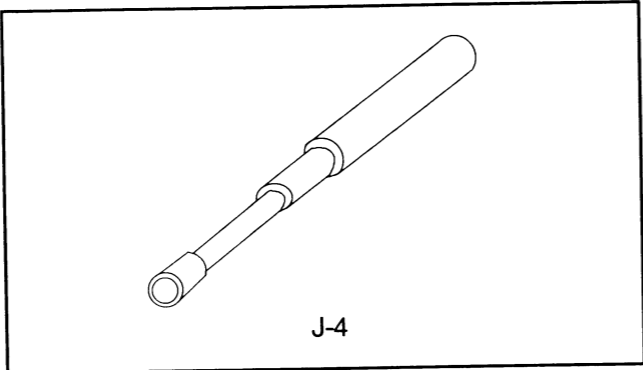
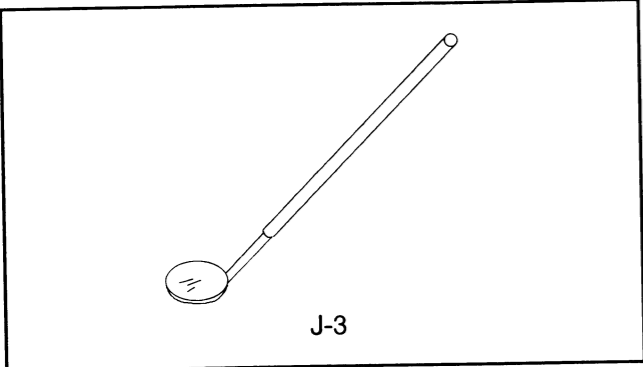
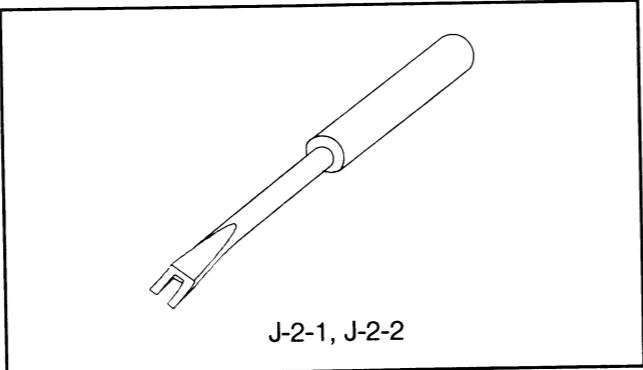
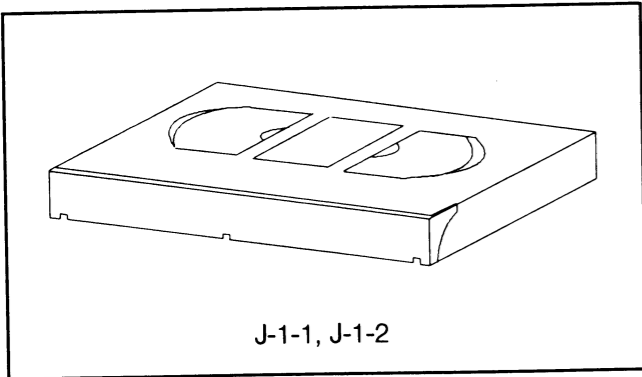
- 1. Remove the top cabinet.
- 2. Dip the cotton swab in 90% isopropyl alcohol and clean the audio control head. Be careful not to damage the upper drum and other tape running parts.

Notes:

- 1. Avoid cleaning the audio control head vertically.
- 2. Wait for the cleaned part to dry thoroughly before operating the unit or damage may occur.



SERVICE FIXTURES AND TOOLS



Ref. No.	Name	Part No.	Adjustment
J-1-1	Alignment Tape	F6-A	Head Adjustment of Audio Control Head
J-1-2	Alignment Tape	F6-N	Azimuth and X Value Adjustment of Audio Control Head / Adjustment of Envelope Waveform
J-2-1	Special Driver, Large	FSJ-0001	X Value
J-2-2	Special Driver, Small	FSJ-0006	Guide Roller
J-3	Mirror	FSJ-0004	Tape Transportation Check
J-4	Box Driver, Mx3	FSJ-0005	A/C Head Height
J-5	Deck Extention Cable	N1091XA	All Mechanical and Electrical Adjustments

Note:

Before starting any adjustment, take the Deck Assembly out of the cabinet and use J-5 to connect the Deck Assembly with the Main CBA.

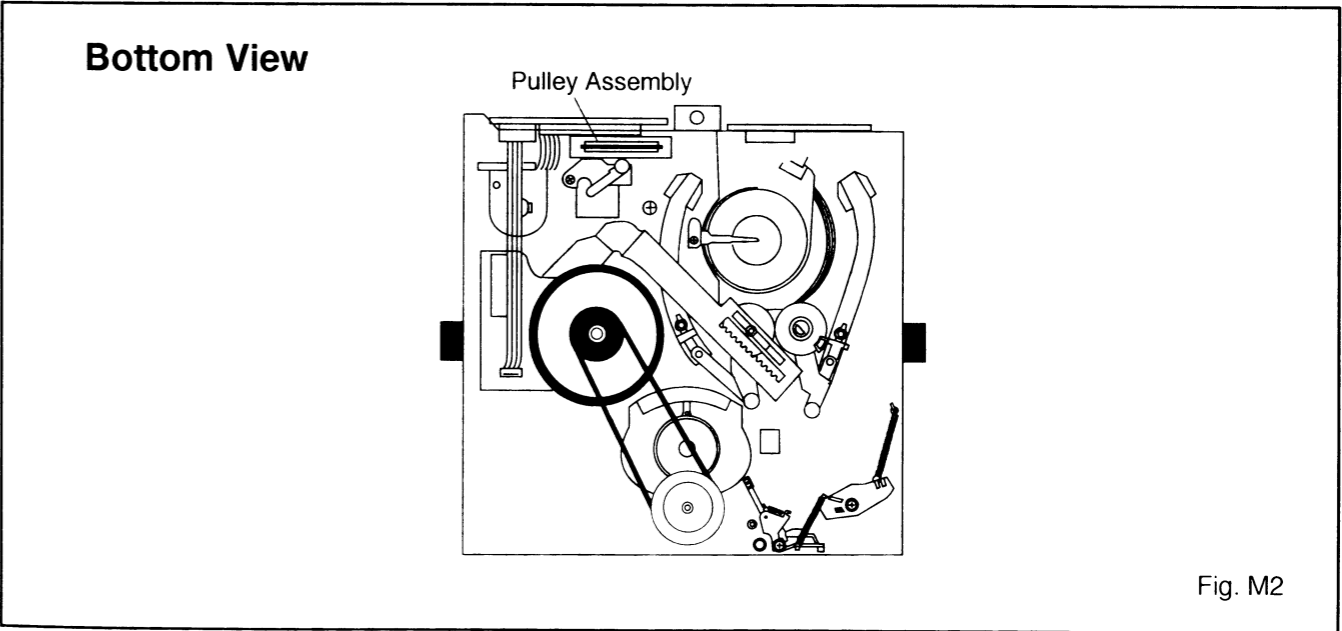
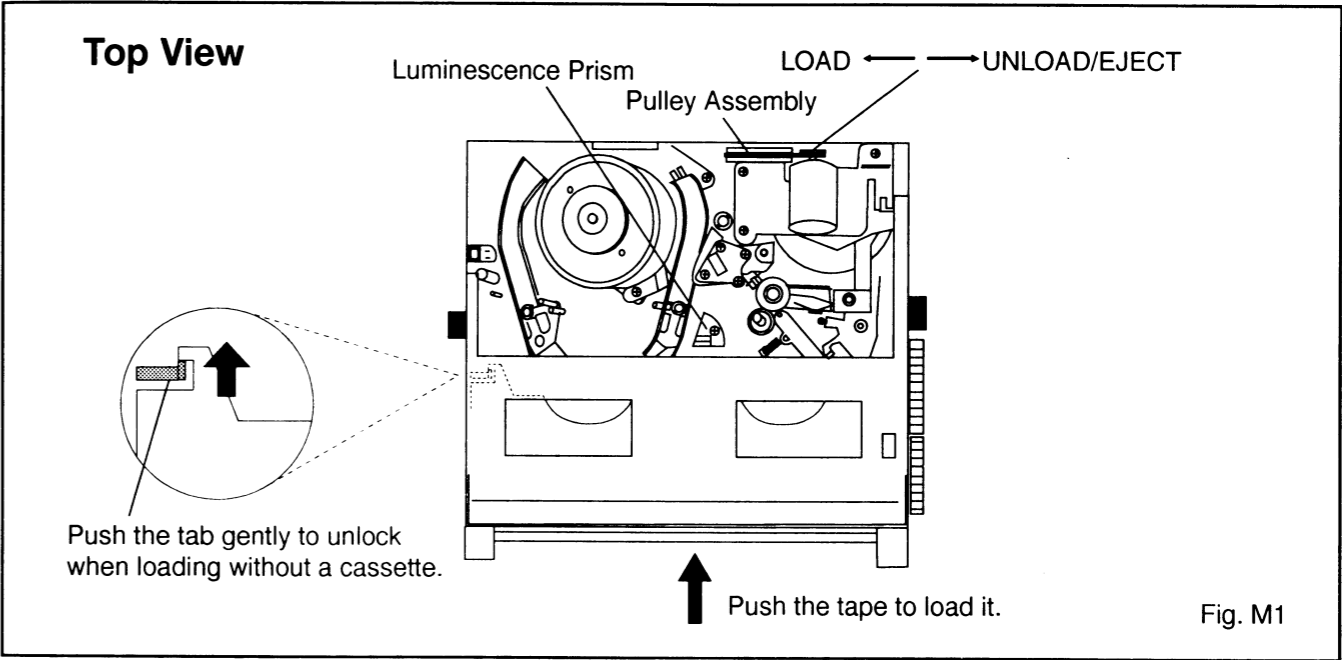
MECHANICAL ALIGNMENT PROCEDURES

Service Information

- A. Method for Manual Tape Loading/Unloading of VCR.
- To place the Cassette Holder in the down position, turn the Pulley Assembly clockwise as viewed from the back of the Deck. To place the Cassette Holder in the up position, turn the Pulley Assembly counter-clockwise as viewed from the back of the Deck.
- B. How to place the Cassette Holder in the down position without a cassette tape.

METHOD

1. Disconnect the AC Plug and remove the Top Cover.
2. Turn the Pulley Assembly clockwise as viewed from the back of the Deck.



# 1. Tape Interchangeability Alignment (Final Alignment)

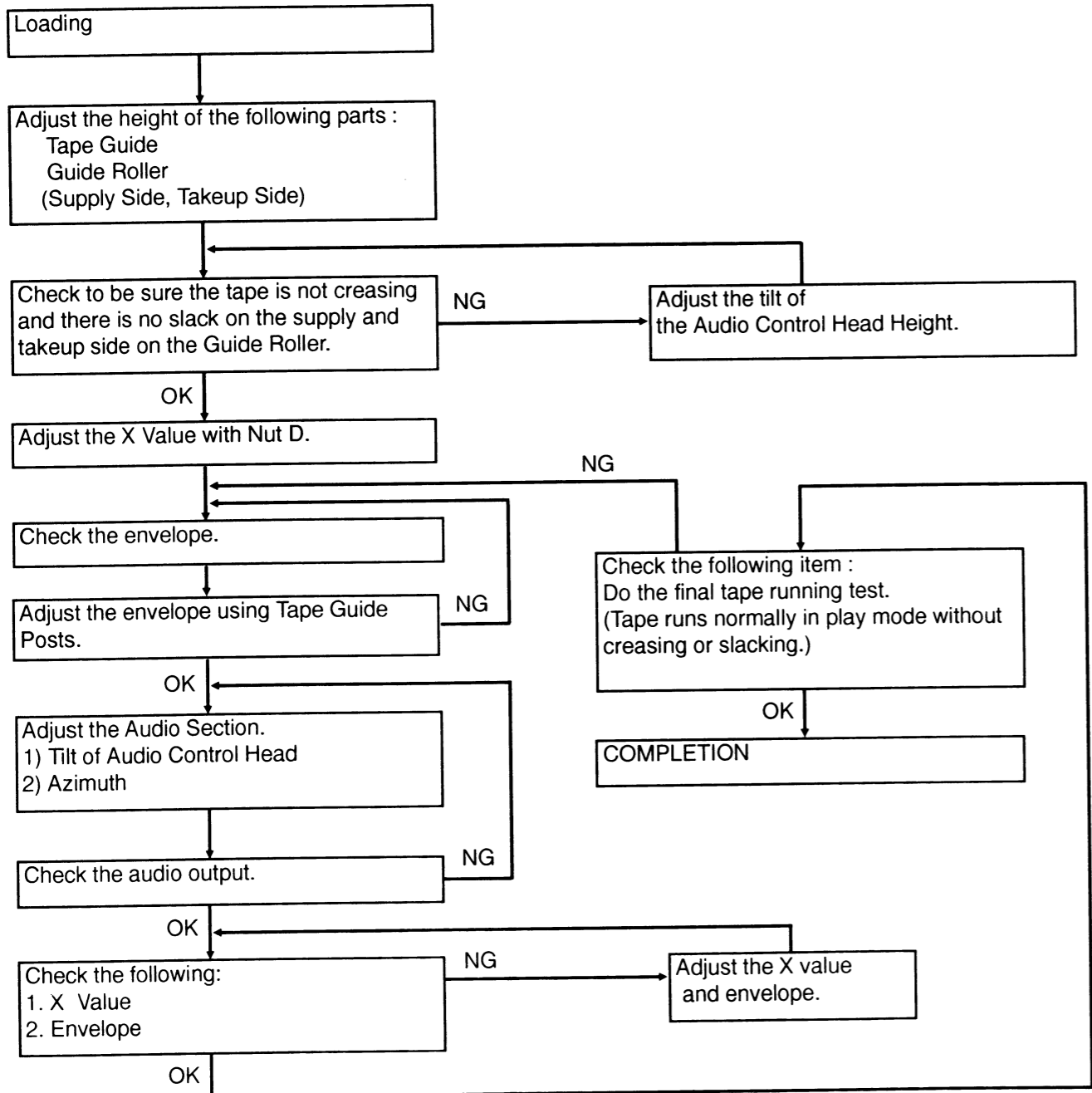
**Note:** To do these alignment procedures, be sure that the Tracking Control Circuit is set to the Neutral mode.

## Equipment required :

- Dual Trace Oscilloscope
- VHS Alignment Tape (F6-A, F6-N)
- Post Alignment Screwdriver
- X-Position Alignment Fixture
- Screwdriver (For the Tape Guide Rollers)
- Box Driver M3

**Note:** After this Mechanical Alignment is completed, secure screw [C] shown in Fig.M6 with lock paint and do all Electrical Adjustment procedures.

Tape Running Alignment Flowchart



# 1-A. Preliminary Checking and Alignment of Tape Running

## Purpose:

To make sure that the tape running is well stabilized.

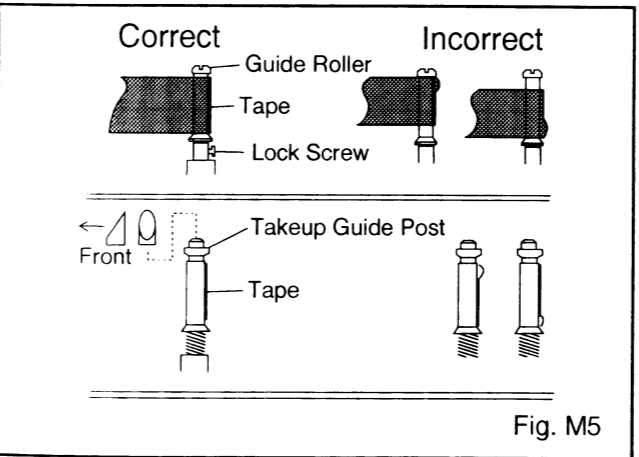
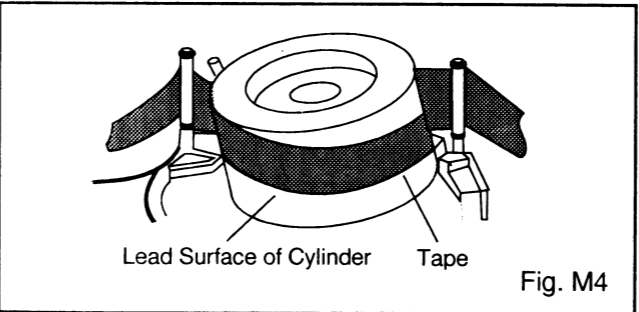
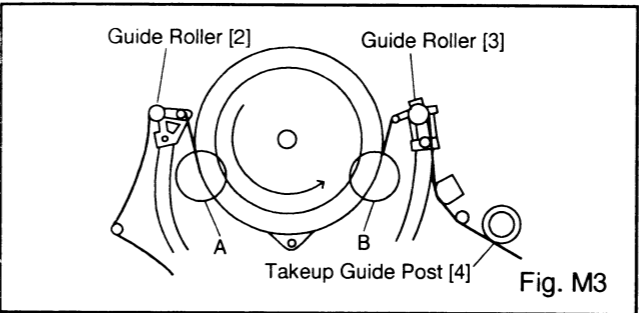
## Symptom of Misalignment:

If the tape runs unstable, the tape will be damaged.

1. Play back a cassette tape and check to see that the tape runs without creasing at Guide Rollers [2] and [3], and at points A and B on the lead surface. (Refer to Fig M3 and M4)
2. If creasing is apparent, align the height of the guide rollers by turning the top of Guide Rollers [2] and [3] with a Post Adjustment Screwdriver. (Refer to Fig. M3 and M5)

**Note:** Before turning the Guide Rollers, loosen the Lock Screw using a lock screwdriver.

**Note:** Do not use an Alignment Tape for this procedure. If the unit is not correctly aligned, the tape may be damaged.



# 1-B. Preliminary Checking of Audio/Control Head Height

## Purpose :

To make sure that the tape runs properly along the Control Head.

## Symptom of Misalignment:

If the control signal is not properly picked up, proper Servo Operation cannot be achieved.

The head height adjustment is required when the Audio/Control Head is replaced.

For final alignment, do the adjustments described in 1-C and 1-D.

**Note:** Play back a cassette tape. Looking at the lower edge of the Control Head with the tape in motion, make sure that the lower edge of the tape runs 0.15~0.25mm above the lower edge of the Control Head. If it does not run properly, turn Height Adjustment Nut [A] slightly in either direction as necessary to correct it. Turn clockwise, as viewed from the top, to lower the head and counterclockwise to raise it. (Refer to Fig. M6 and M7.)

# 1-C. Preliminary Checking of Tilt of Audio/Control Head

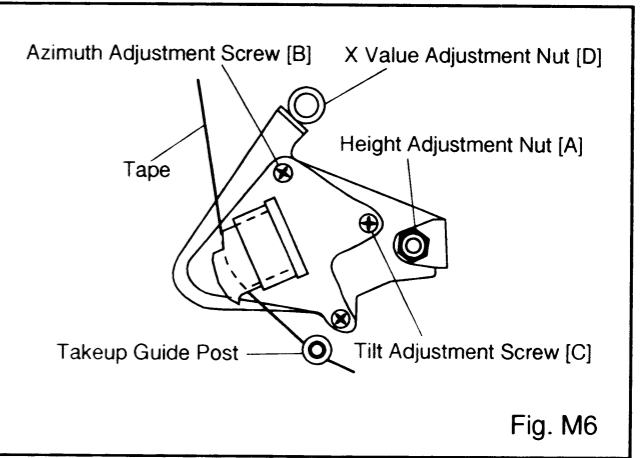
## Purpose:

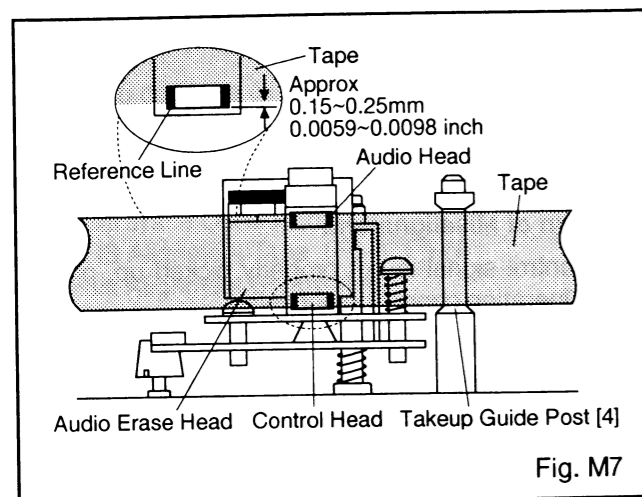
To confirm that the tape running is well stabilized, confirm that the signals on the tape are properly picked up by the Audio Head at the upper part and by the Control Head at the lower part.

## Symptom of Misalignment:

If the tilt of the Audio/Control Head is poorly aligned, the tape will eventually be damaged.

Play back a cassette tape and confirm that there is no tape slack between Takeup Guide Post [4] in Fig. M3 and the Audio/Control Head. If there is any slack, align the Audio/Control Head by turning tilt adjustment screw [C] in Fig. M6 so that the tape has no slack.





### 1-D. Final Alignment of Audio/Control Head Height

#### Purpose:

To align the position and height of the Audio/Control Head so that it meets the tape tracks properly.

#### Symptom of Misalignment:

If the position of the Audio/Control Head is not properly aligned, the Audio S/N Ratio or Frequency Response will be poor.

1. Connect the oscilloscope to the audio output jack on the rear side of the deck.
2. Confirm that there is no tape slack between the Takeup Guide Roller and the Audio/Control Head. If there is any tape slack, remove it by turning Tilt Adjustment screw [C]. Then realign the height of the Guide Rollers (Refer to 1-A).
3. Play back the Color Bar (1kHz, Audio) on the alignment tape (F6-A) and confirm that the audio signal output level is 1kHz. Finally, adjust Height Adjustment Nut [A] so that the output level is at maximum. (Fig. M6, Fig. M8[b])
4. Adjust Azimuth Adjustment Nut [B] so that the output level on the AC Voltmeter is at maximum. (Fig. M6)

**Note:** Secure screw [C] with lock paint after realignment.

### Azimuth Alignment of Audio/Control Head

#### Purpose:

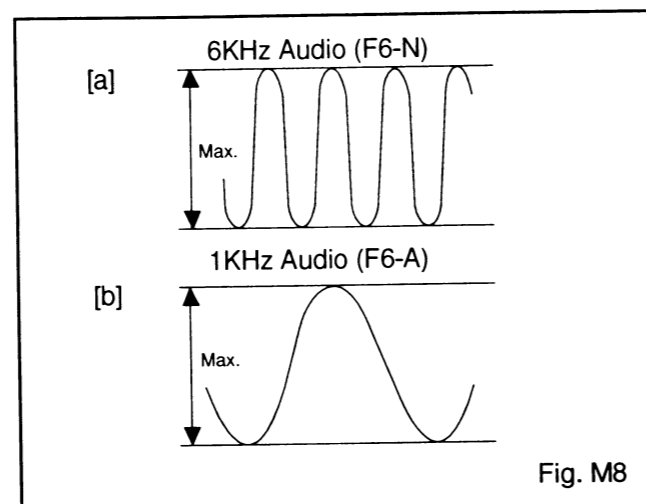
To correct the Azimuth alignment so that the Audio/Control Head angle meets tape tracks properly.

#### Symptom of Misalignment:

If the position of the Audio/Control Head is not properly aligned, the Audio S/N Ratio or Frequency Response will be poor.

1. Connect the oscilloscope to the audio output jack on the rear side of the deck.

2. Play back the Gray Scale (6kHz, audio) on the alignment tape (F6-N), and adjust Height Adjustment Nut [A] so that the output level on the AC Voltmeter or the waveform of the oscilloscope is at maximum. (Fig. M6, Fig. M8[a])



### 1-E. X Value Alignment

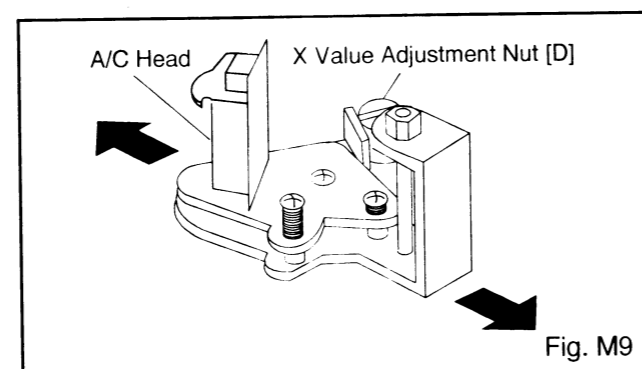
#### Purpose:

To align the Horizontal Position of the Audio/Control Head.

#### Symptom of Misalignment:

If the Horizontal Position of the Audio/Control Head is not properly aligned, maximum envelope cannot be obtained at the Neutral mode of the Tracking Control Circuit.

1. Set the Tracking Control Circuit to the Neutral mode by pressing CH UP and DOWN buttons on VCR simultaneously.
2. Connect the oscilloscope to TP of C-PB on the Main CBA. Use TP of RF-SW as a trigger.
3. Play back the Gray Scale of the Alignment Tape (F6-N) and confirm that the PB FM signal is present.
4. Adjust X Value adjustment Nut [D] with the X Position Adj-Fixture so that the PB FM signal at the TP of C-PB or at the TP of A-OUT is maximum. (Fig. M9)



### 1-F. Final Checking/Adjustment of Envelope Waveform

#### Purpose:

To achieve a satisfactory picture and precise tracking.

#### Symptom of Misalignment:

If the envelope output is poor, noise will appear in the picture. The tracking will then lose precision and the playback picture will be distorted by any slight variation of the Tracking Control.

1. Set the Tracking Control Circuit to the Neutral mode by pressing both CH UP and DOWN buttons on VCR simultaneously.
2. Connect the oscilloscope to TP of C-PB on the Main CBA. Use TP of RF-SW as a trigger.
3. Play back the Gray Scale on the Alignment Tape (F6-N). Adjust the height of Guide Rollers [2] and [3] (Fig. M3) watching the oscilloscope display so that the envelope becomes as flat as possible. If adjustment is required, turn the top of the Guide Roller with the Post Adjustment Screwdriver.
4. When the envelope is as shown in Fig. M10, adjust the height of Guide Roller [2] (Refer to Fig. M3) so that the waveform looks like the one shown in Fig. M12.
5. When the envelope is as shown in Fig. M11, adjust the height of Guide Roller [3] (Refer to Fig. M3) so that the waveform looks like the one shown in Fig. M12.
6. When Guide Rollers [2] and [3] (Refer to Fig. M3) are aligned properly, there is no envelope drop either at the beginning or end of track as shown in Fig. M12.

**Note:** Upon completion of the adjustment of Guide Rollers [2] and [3] (Refer to Fig. M3), tighten the Lock Screws on these Guide Rollers [2] and [3], using a lock screw wrench. Then check the X VALUE by pushing the Tracking Control Up or Down buttons alternately, to check the symmetry of the envelope. If required, redo the "X VALUE ALIGNMENT." Secure screw [C] shown in Fig. M6 with lock paint.

Dropping envelope level at the beginning of track.



Fig. M10

Dropping envelope level at the end of track.



Fig. M11

Envelope is adjusted properly. (No envelope drop)



Fig. M12

DISASSEMBLY/ASSEMBLY PROCEDURES  
OF DECK MECHANISM

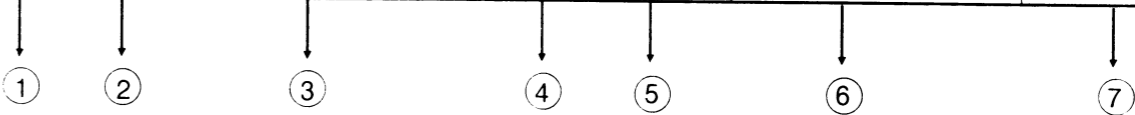
Main Mechanism

Before following the procedures described below, be sure to:

- 1. Remove the deck assembly from the cabinet.  
(Refer to CABINET DISASSEMBLY INSTRUCTIONS in Section 1.)
  - 2. Remove Front Loading Assembly from the main mechanism of the deck assembly. (See Fig. DM1.)
- All the following procedures, including those for adjustment and replacement of parts, should be done in Eject mode; see the positions of [32] and [33] in Fig. DM3 on page 2-4-4. When reassembling, follow the steps in reverse order.

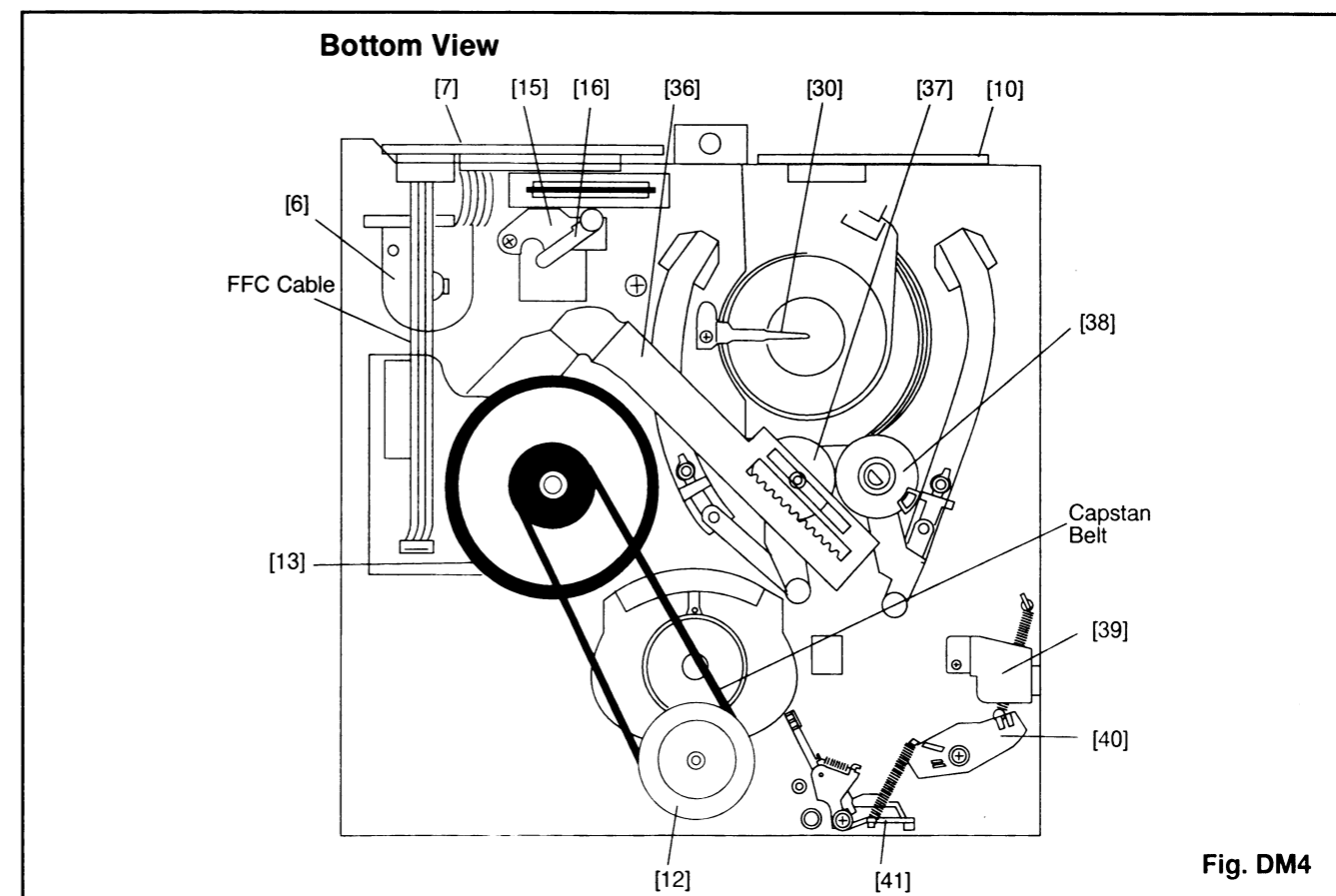
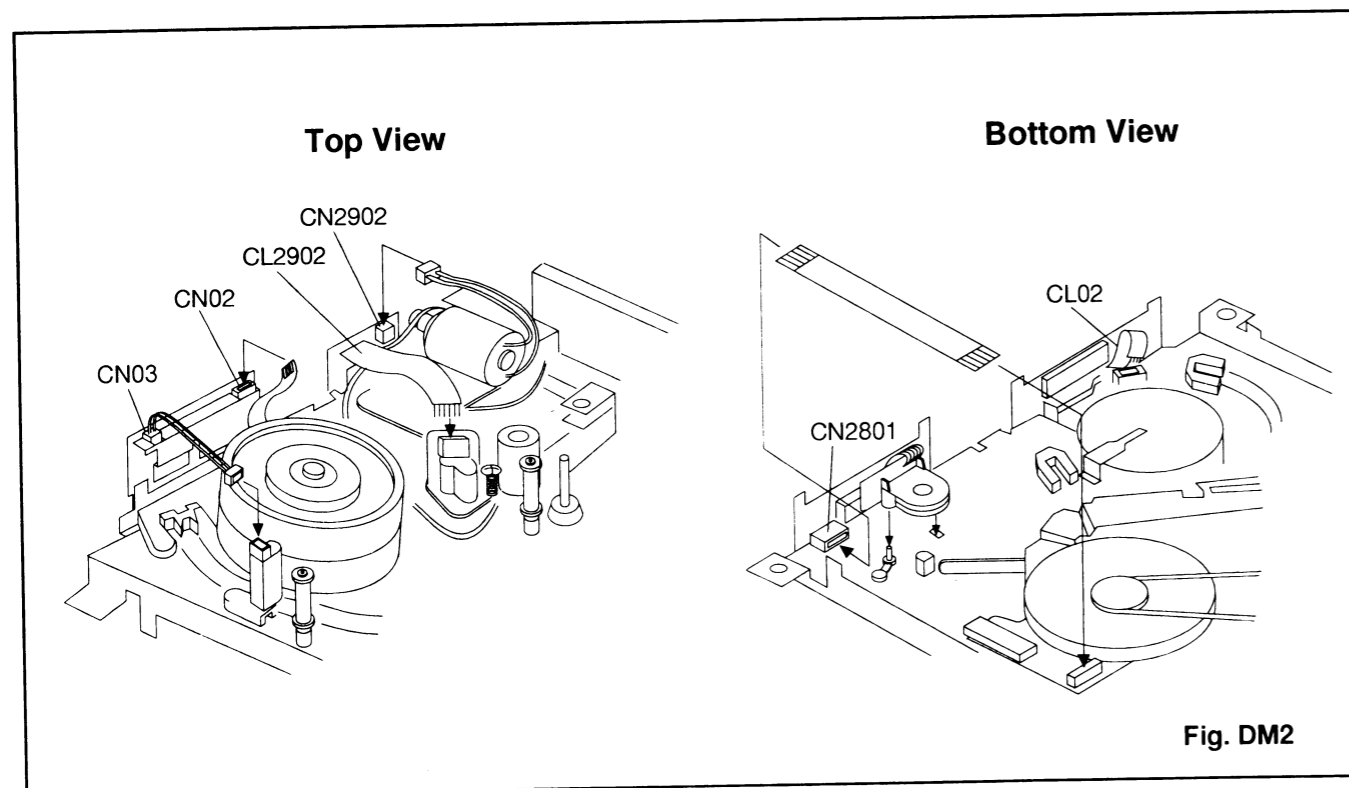
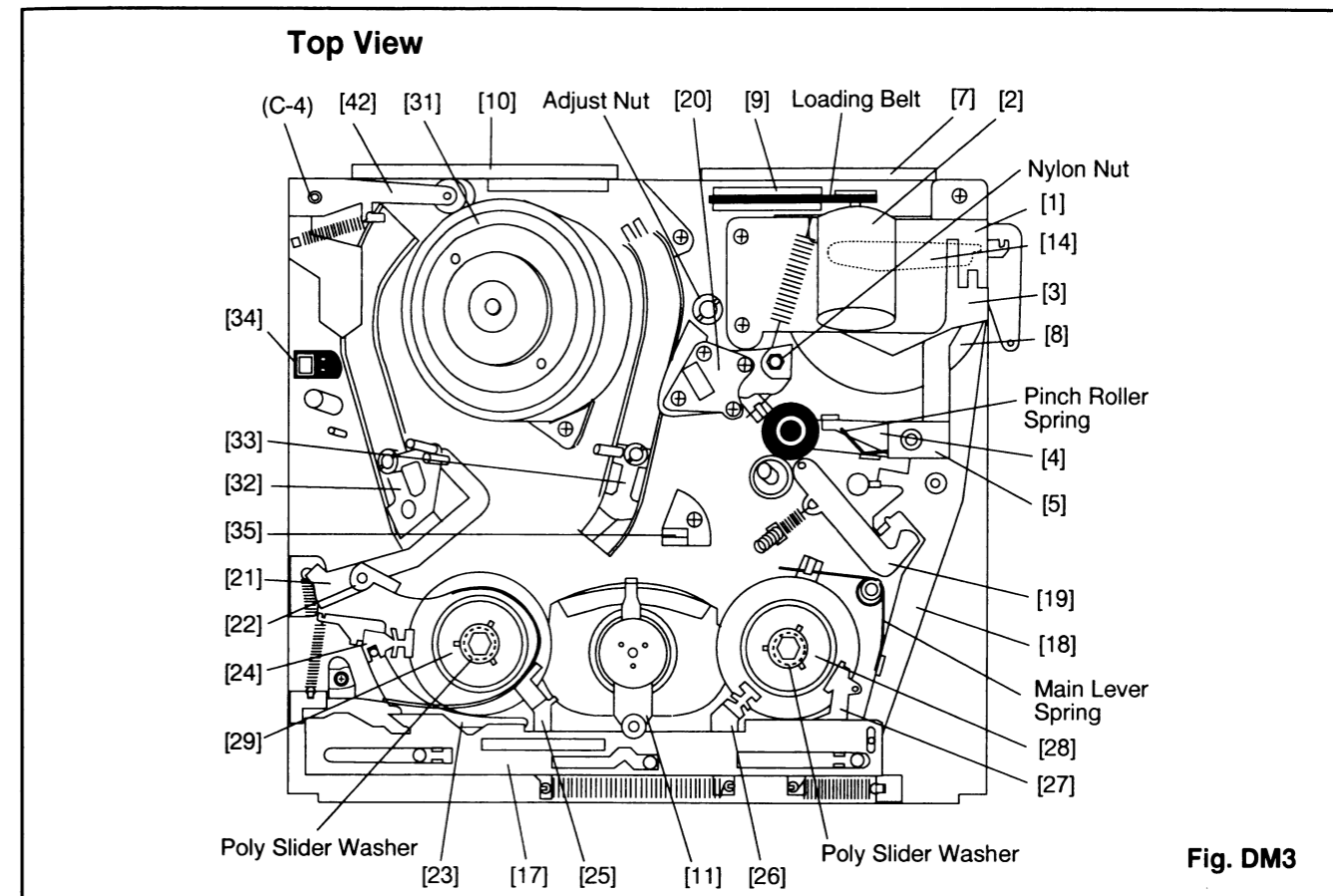
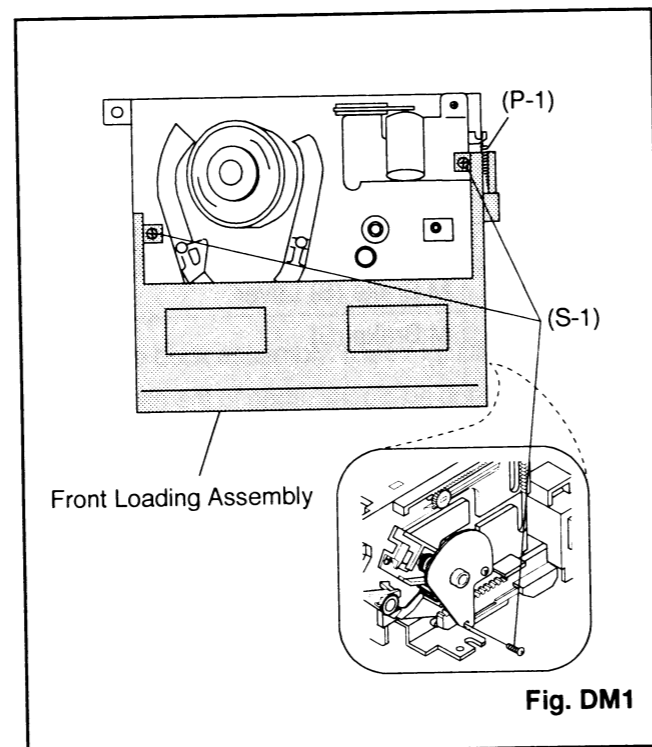
STEP /LOC. No.	START-ING No.	PART		REMOVAL		INSTALLATION
				Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	ADJUSTMENT CONDITION
[1]	[1]	Motor Holder Assembly	T	DM3 DM5 DM6	3(S-2), *(P-2) Loading Belt	(+) Refer to Alignment Sec. Pg. 2-4-11.
[2]	[1]	Loading Motor Assembly	T	DM2 DM3 DM5	2(S-3), CN2902	
[3]	[1]	Cassette Drive Lever Assembly	T	DM3 DM5		(+) Refer to Alignment Sec. Pg. 2-4-11.
[4]	[1]	Pinch Roller Arm Assembly	T	DM3 DM5	(C-1) Pinch Roller Spring	Refer to Alignment Sec. Pg. 2-4-11.
[5]	[1]	Pinch Arm Assembly	T	DM3 DM5		Refer to Alignment Sec. Pg. 2-4-11.
[6]	[6]	Mode SW CBA	B	DM4 DM8	*(L-1), Stopper Boss	
[7]	[7]	Joint CBA	T/B	DM2 DM3 DM4 DM7 DM8	(S-4), CN2801 CN2902, *CL2901 CL2902	
[8]	[1]	Cam	T	DM3 DM5		(+) Refer to Alignment Sec. Pg. 2-4-11.
[9]	[1]	Pulley Assembly	T	DM3 DM6	(W-1), Loading Belt	(+)
[10]	[10]	Head Amp CBA	T/B	DM2 DM3 DM4 DM8	(S-5), (S-6), CN02, CN03, CL02	
[11]	[11]	Arm Idler Assembly	T	DM3 DM9	Clutch Bushing	(+)
[12]	[12]	Clutch Assembly	B	DM4 DM9	(C-2), (W-2) Capstan Belt	
[13]	[9]	Capstan Motor Unit	B	DM4 DM10	3(S-7)	
[14]	[1]	M Lever Holder	T	DM3 DM11	(S-8)	
[15]	[1]	Kick Arm Holder	B	DM4 DM11	Kick Arm Spring	
[16]	[15]	Kick Arm	B	DM4 DM11	Bushing	
[17]	[17]	Mode Change Lever	T	DM3 DM12	*2(L-2)	(+)
[18]	[1]	Main Lever Assembly	T	DM3 DM15	*(L-3)	
[19]	[19]	Tape Guide Assembly	T	DM3 DM15	*(P-3), *(L-4)	Keep the distance specified in Fig. DM15.
[20]	[20]	ACE Head Assembly	T	DM3 DM14	Nylon Nut Head Height Adjustment Spring	Keep the distances specified in Fig. DM14.

STEP /LOC. No.	START-ING No.	PART		Fig. No.	REMOVAL	INSTALLATION
					REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	ADJUSTMENT CONDITION
[21]	[21]	Tension Lever Sub Assembly	T B	DM3 DM13 DM22	*(L-5) *(P-7)	
[22]	[21]	Band Brake Sub Assembly	T	DM3 DM13	(S-9), *(L-6)	
[23]	[17]	M Brake (S) Lever	T	DM3 DM16		
[24]	[17]	M Brake (S)	T	DM3 DM16	*(P-4), *(L-7)	When reassembling, hook the spring (P-4) after installation of Mode Change Lever.
[25]	[17]	S Brake Arm	T	DM3 DM16	*(P-5)	When reassembling, hook the spring (P-5) after installation of Mode Change Lever.
[26]	[17]	M Brake (T) Assembly	T	DM3 DM16		
[27]	[17]	T Brake Arm Assembly	T	DM3 DM16	*(P-6)	When reassembling, hook the spring (P-6) after installation of Mode Change Lever.
[28]	[17]	Reel Base Assembly T	T	DM3 DM17	Poly Slider Washer	(+)
[29]	[17]	Reel Base Assembly S	T	DM3 DM17	Poly Slider Washer	(+)
[30]	[30]	Ground Brush Assembly	B	DM4 DM18 DM19	(S-10)	Refer to Alignment Sec. Pg. 2-4-11.
[31]	[10],[30] Only	Cylinder Assembly	T	DM3 DM18	3(S-11)	Refer to Alignment Sec. Pg. 2-4-11.
[32]	[1]	Moving Guide Assembly	T	DM3 DM20		
[33]	[1]	Moving Guide T Assembly	T	DM3 DM20		
[34]	[34]	FE Head	T	DM3 DM20	(S-12)	
[35]	[35]	Main Prism	T	DM3 DM20	(S-13)	
[36]	[1]	Loading Arm M Assembly	B	DM4 DM21	(C-3)	(+) Refer to Alignment Sec. Pg. 2-4-11.
[37]	[1]	Loading Gear A	B	DM4 DM21		(+) Refer to Alignment Sec. Pg. 2-4-11.
[38]	[1]	Loading Gear B	B	DM4 DM21		(+) Refer to Alignment Sec. Pg. 2-4-11.
[39]	[39]	Spring Supporter	B	DM4 DM22	(S-14)	
[40]	[39]	BT Drive Arm	B	DM4 DM22	(S-15), *(P-7), *(P-8)	
[41]	[41]	Rec Arm	B	DM4 DM22	(S-16)	
*[42]	[42]	Cleaning Head	T	DM3	(C-4)	



- ①: Follow steps in sequence. When reassembling, follow the steps in reverse order.  
These numbers are also used as identification (location) No. of parts in the figures.
- ②: Indicates the part to start disassembling with in order to disassemble the part in column (1).
- ③: Name of the part
- ④: Location of the part  
T=Top B=Bottom R=Right L=Left
- ⑤: Figure Number
- ⑥: Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.  
P=Spring, W=Washer, C=Cut Washer, S=Screw  
L=Locking Tab  
\*=Unhook, Unlock, Release, Unplug, or Desolder  
e.g. 2(C-2) = two Cut Washers (C-2)  
2(L-2) = two Locking Tabs (L-2)
- ⑦: Adjustment Information for Installation  
(+): Refer to Deck Exploded Views for lubrication information.

\*[42]....For Head Cleaner models only



When reassembling [1] through [5] and [8], refer to the Alignment Section, Pg. 2-4-11.

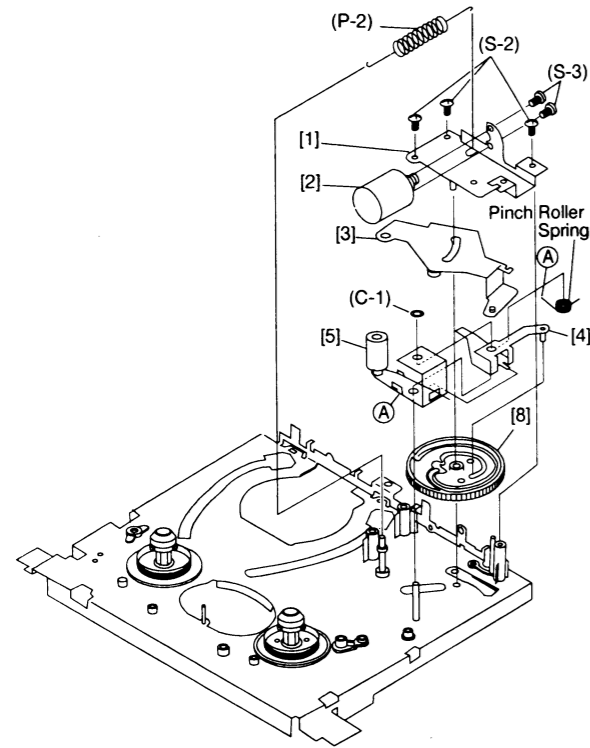


Fig. DM5

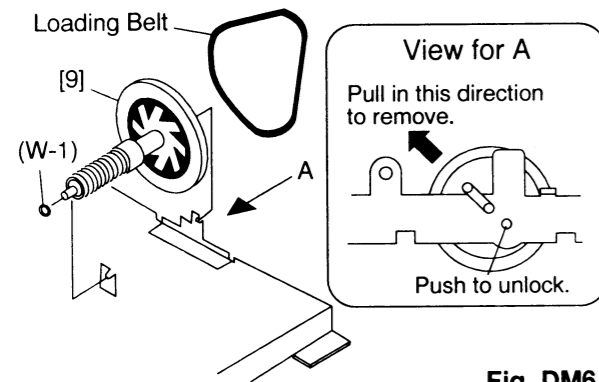


Fig. DM6

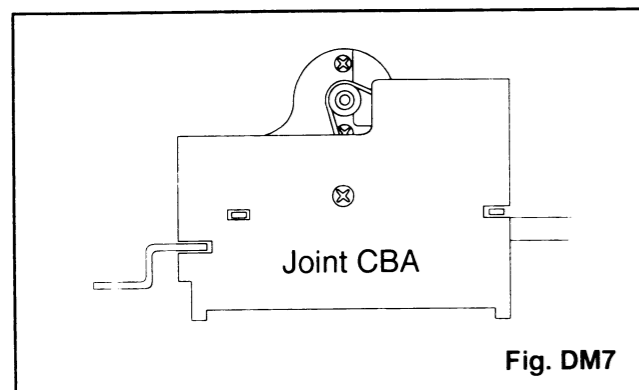


Fig. DM7

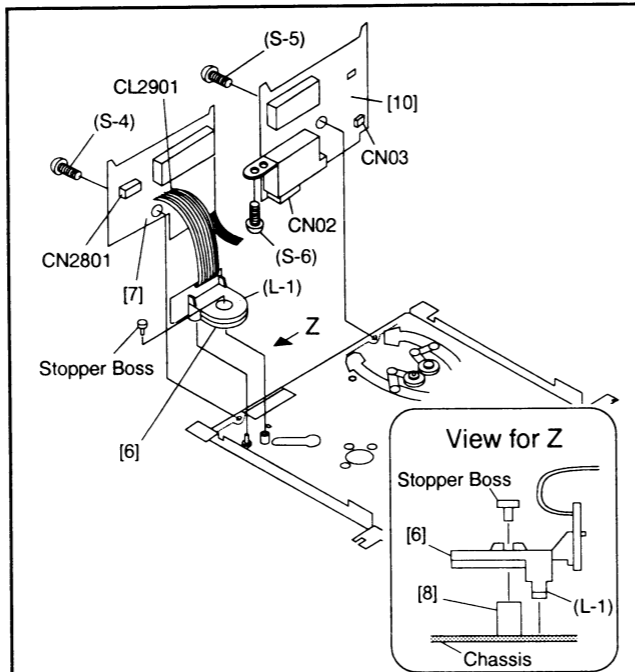


Fig. DM8

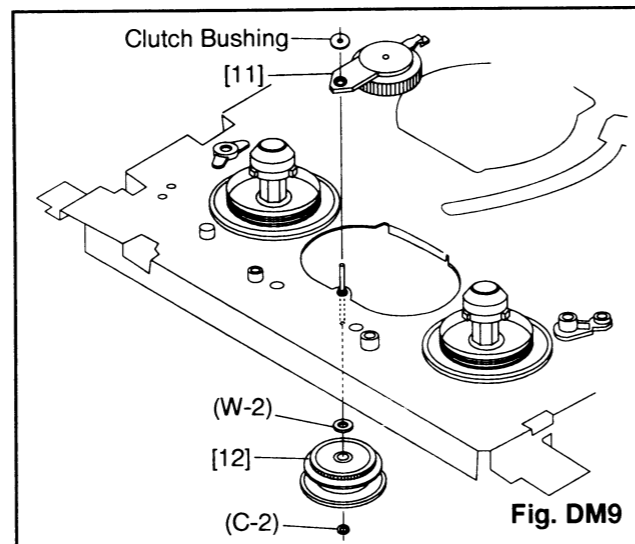


Fig. DM9

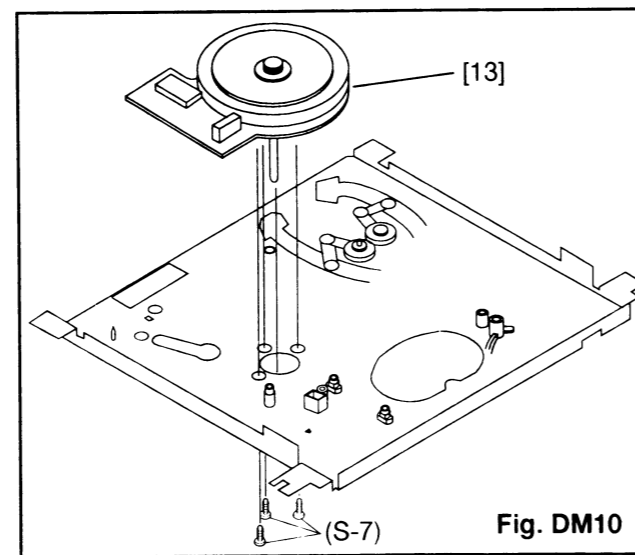


Fig. DM10

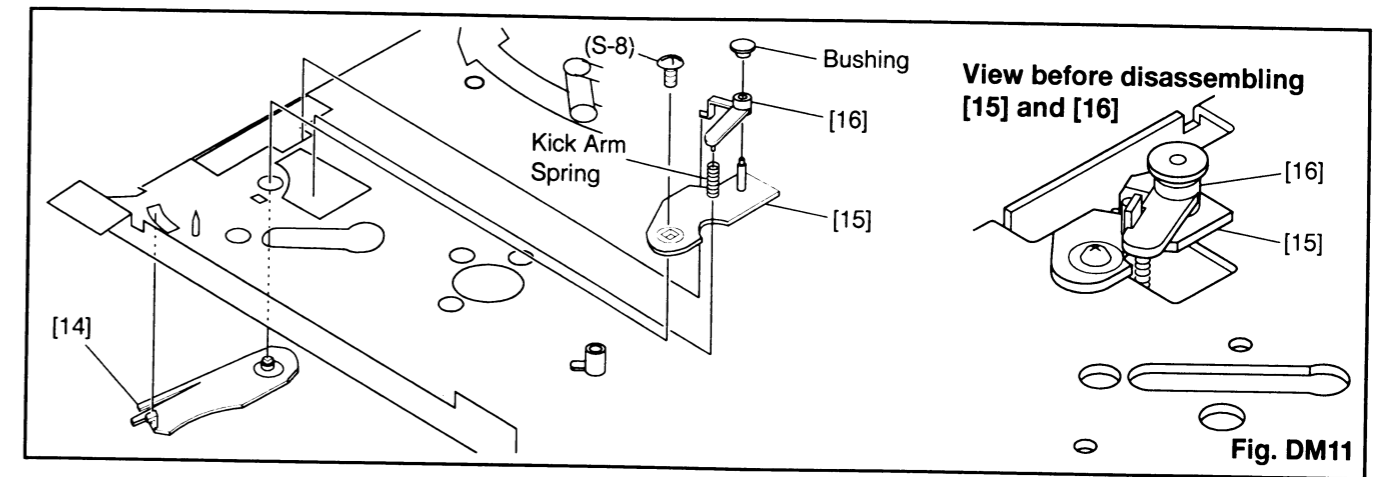


Fig. DM11

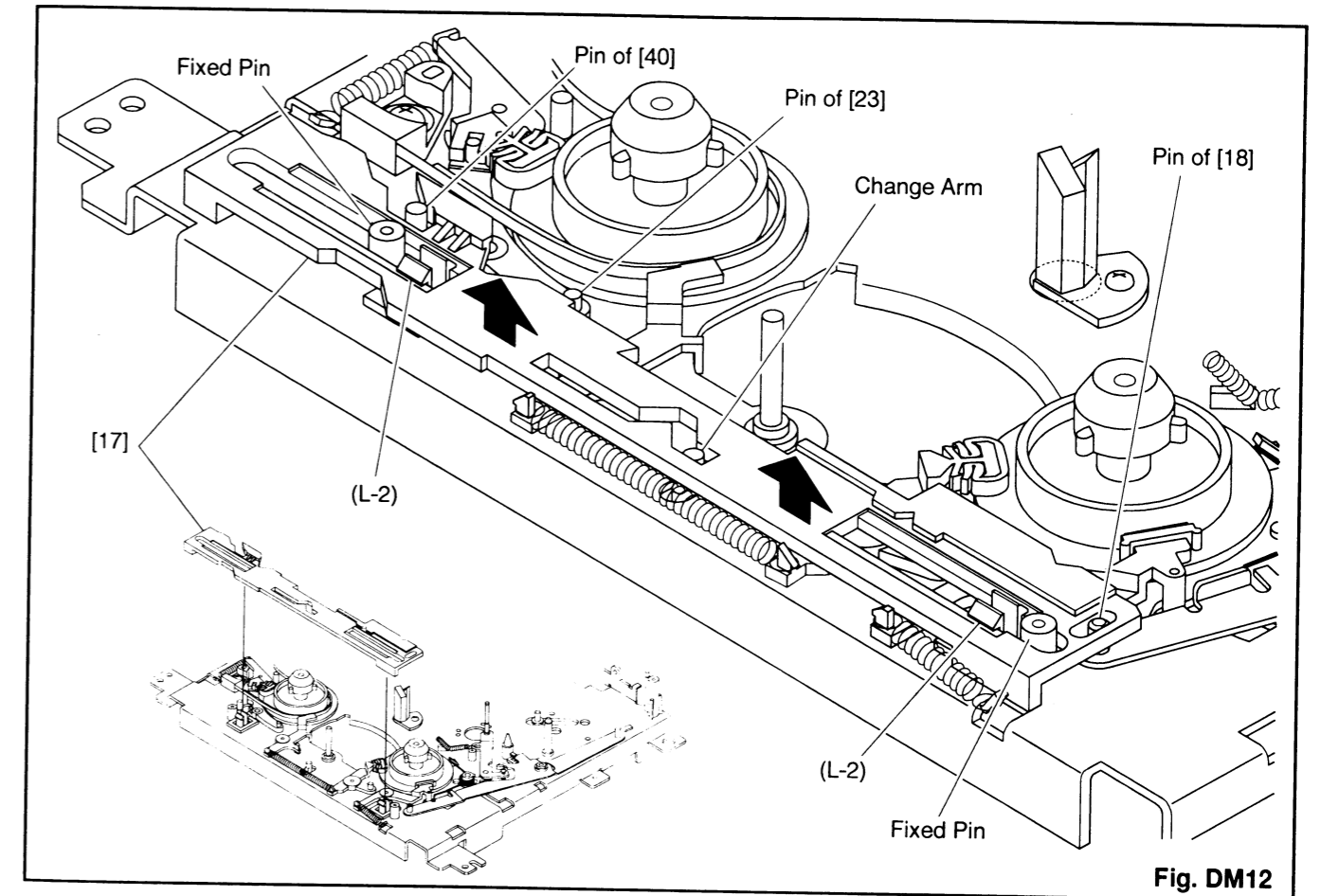


Fig. DM12

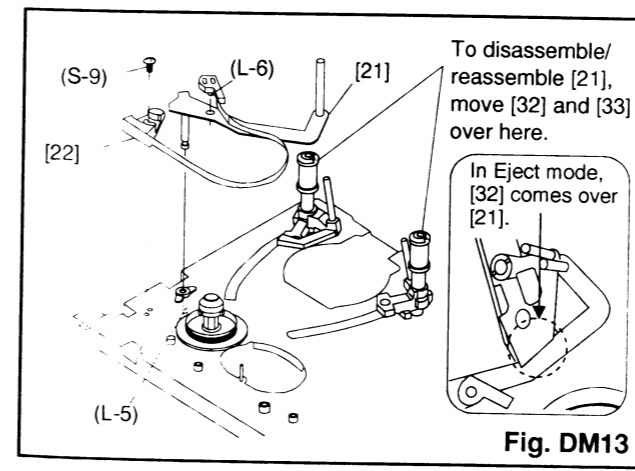


Fig. DM13

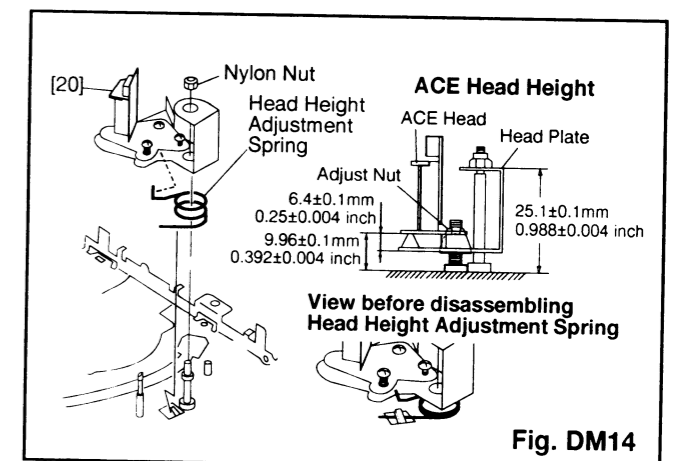
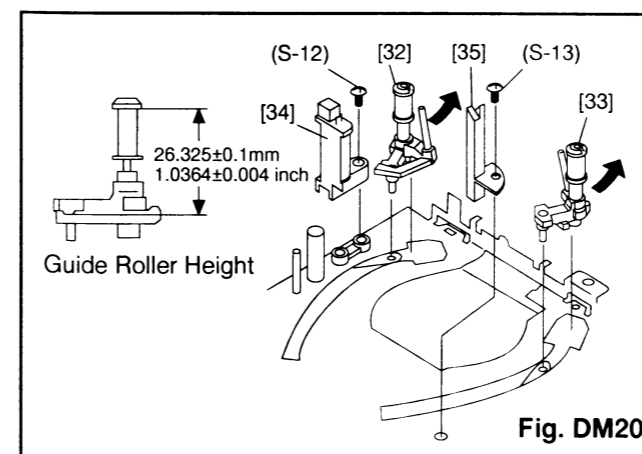
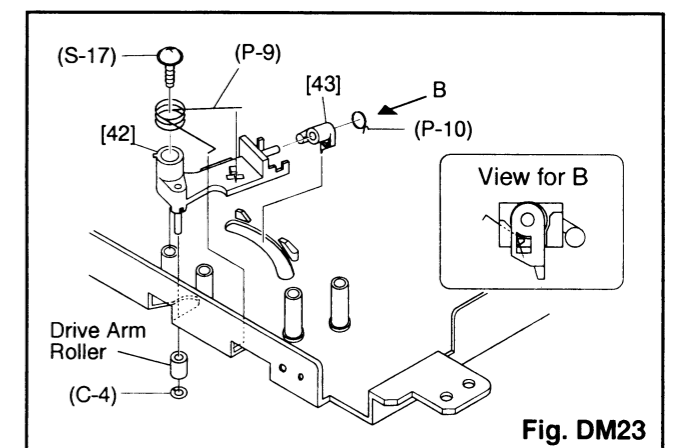
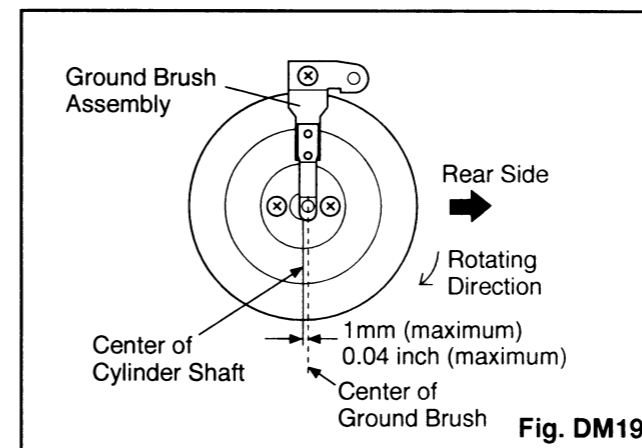
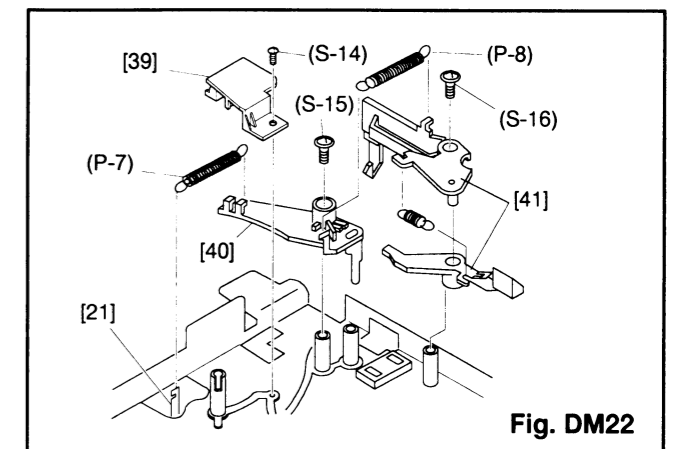
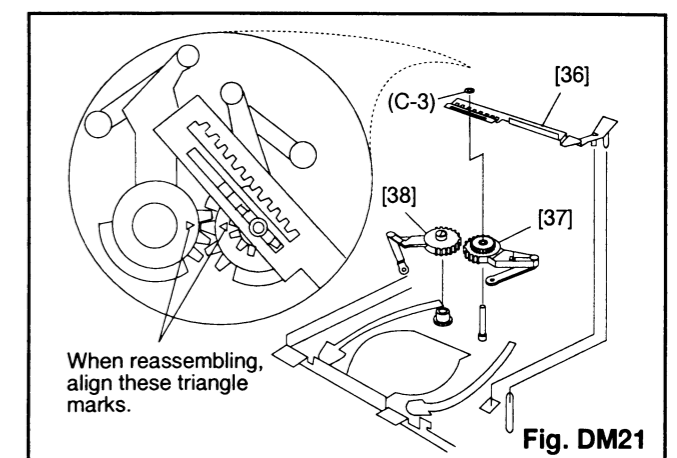
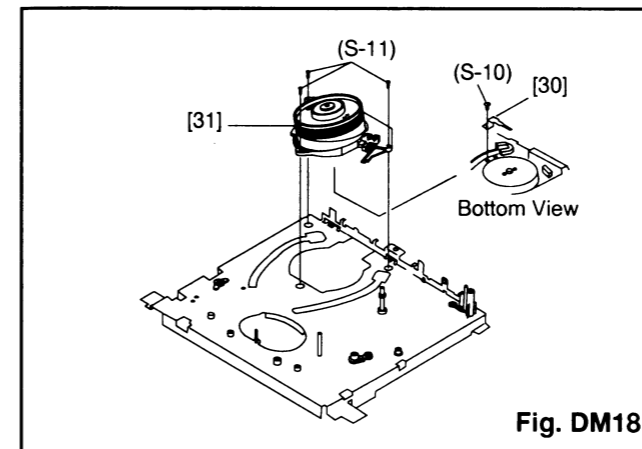
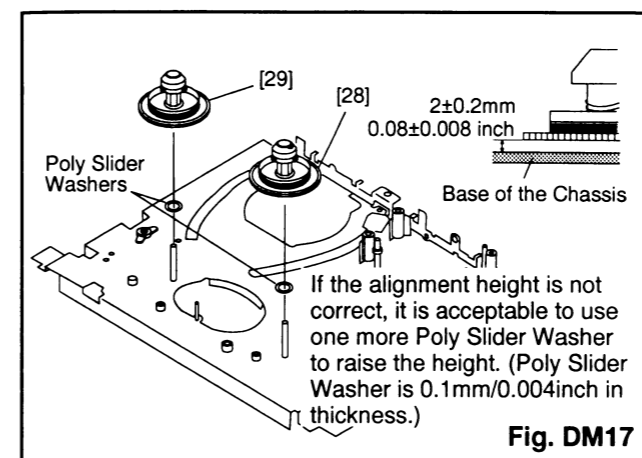
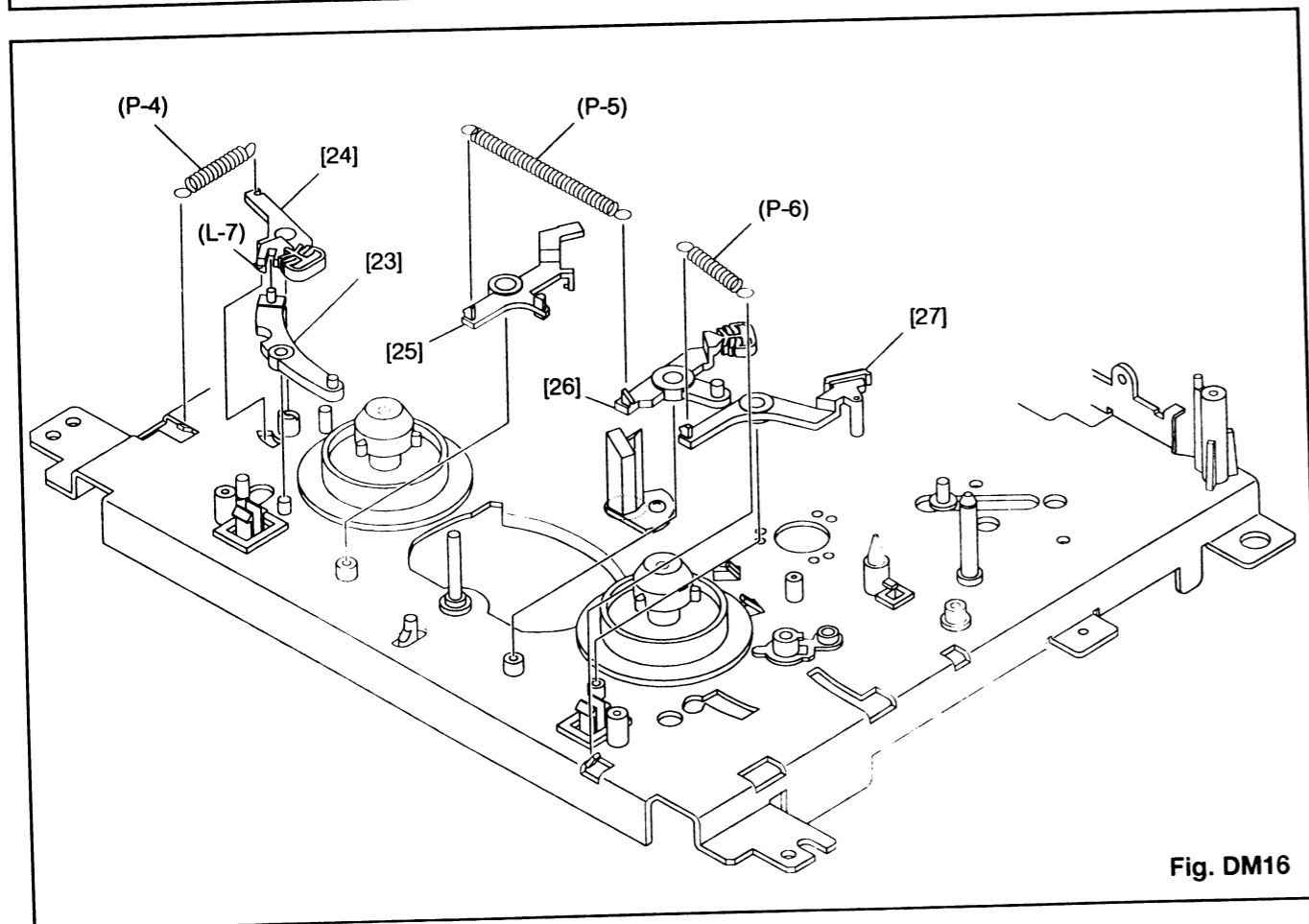
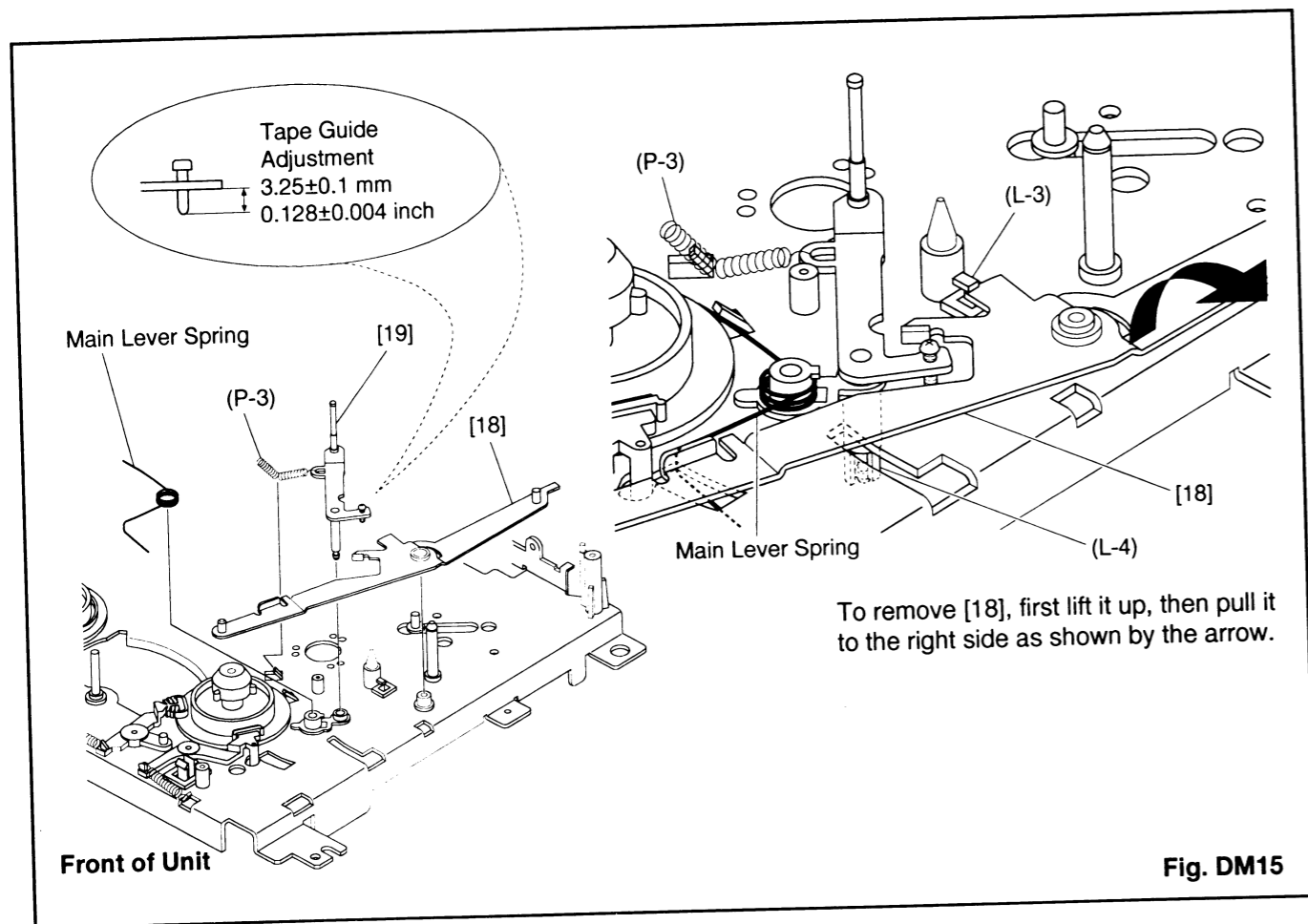


Fig. DM14



Front Loading Assembly

Before following the procedures described below, be sure to remove Front Loading Assembly from the main mechanism of the deck assembly. (See Fig. DM1.) When reassembling, start with the unit in Cassette-in mode and follow the steps in reverse order.

STEP /LOC. No.	START-ING No.	PART		REMOVAL		INSTALLATION
				Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	ADJUSTMENT CONDITION
[1]	[1]	Deck Plate	T	DM26	(S-1)	
[2]	[2]	Gear Supporter	L	DM26	3(S-2)	
[3]	[3]	Door Opener	R	DM24 DM25	*(L-1) Door Opener Spring	
[4]	[3]	Drive Gear Reinforcement	R	DM26 DM27	(S-3)	
[5]	[3]	Cassette Drive Gear	R	DM26 DM27 DM28	Cassette Drive Gear Spring	
[6]	[3]	F Door Opener R	R	DM26	*(L-2) F Door Opener R Spring	
[7]	[3]	Rack	R	DM26 DM28		
[8]	[3]	Slider Gear (2 pieces)	T	DM26	2(C-1)	(+)
[9]	[3]	Slider Shaft	T	DM26		
[10]	[3]	Cassette Holder Assembly	T	DM26 DM27 DM29		
[11]	[11]	Mirror Holder (2 pieces)	L/R	DM26		
[12]	[12]	Release Bush (Holder)	R	DM26	*2(L-3)	

①

②

③

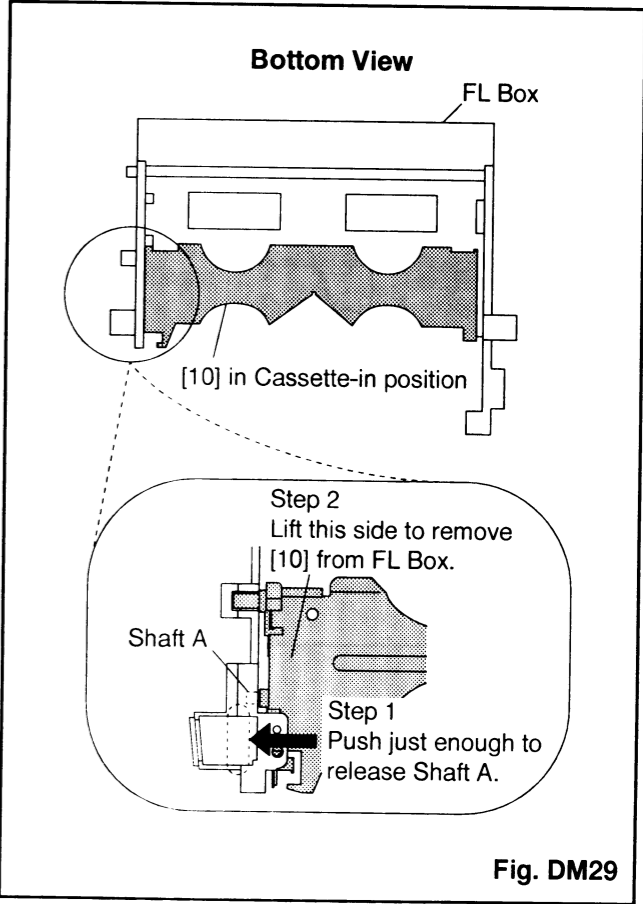
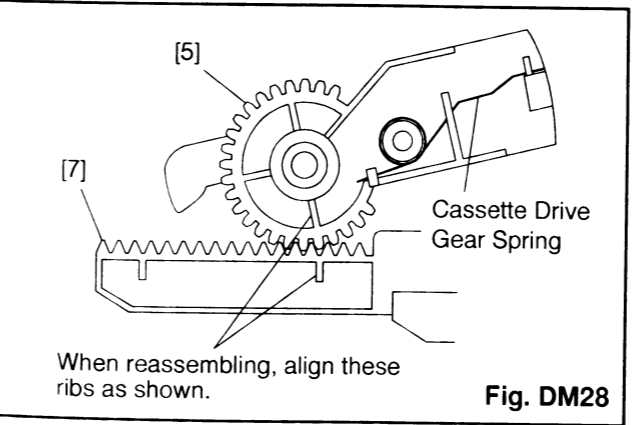
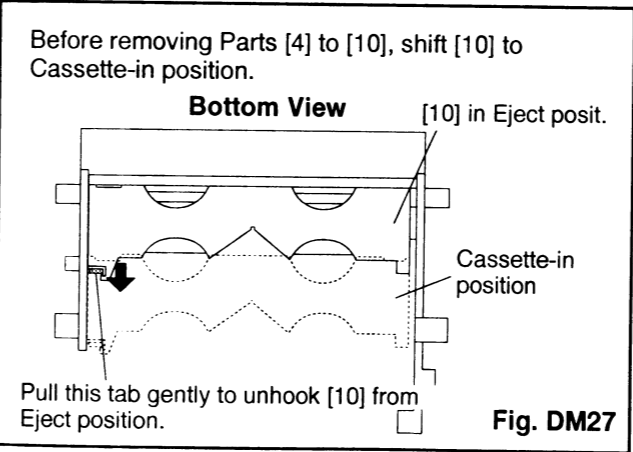
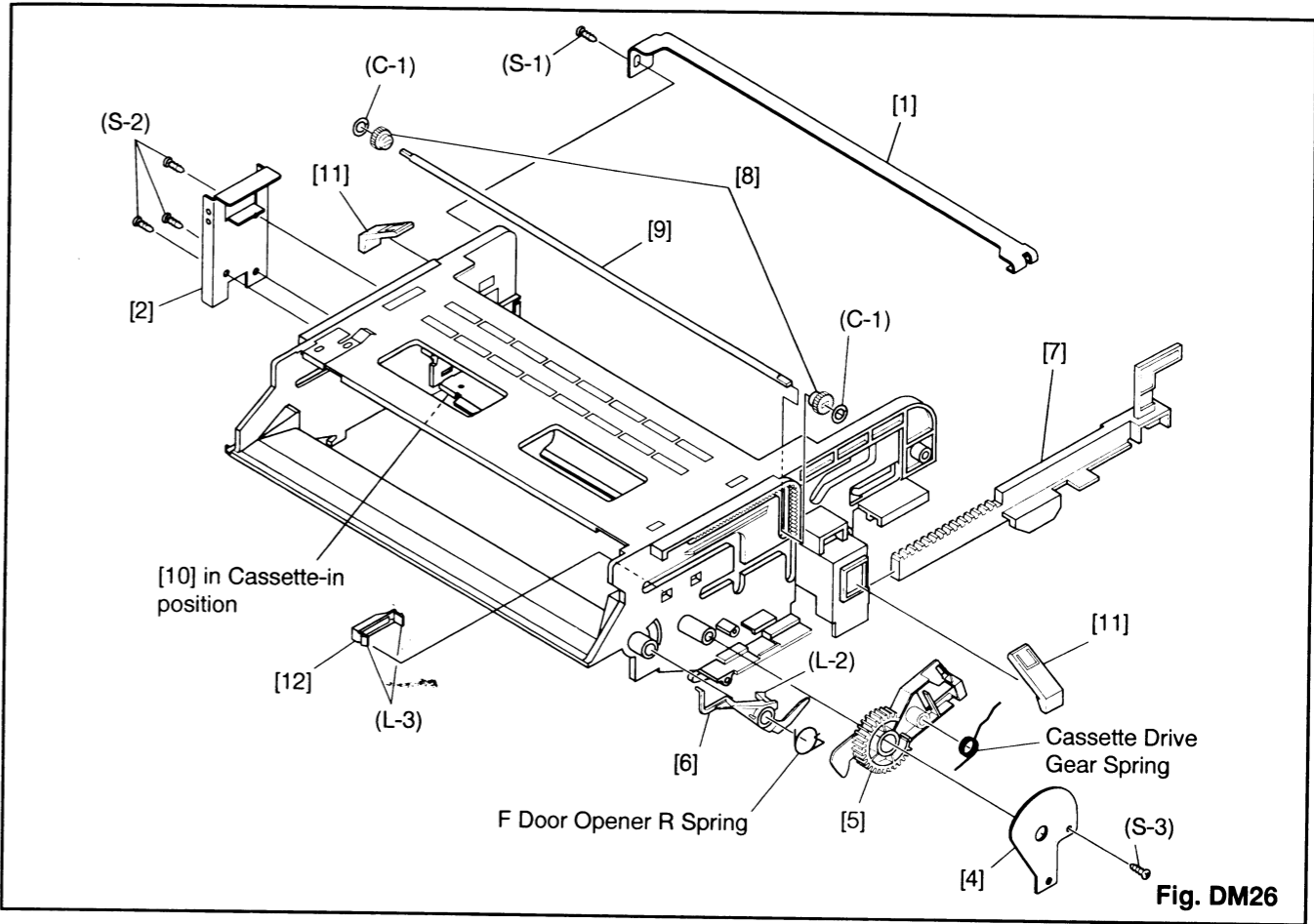
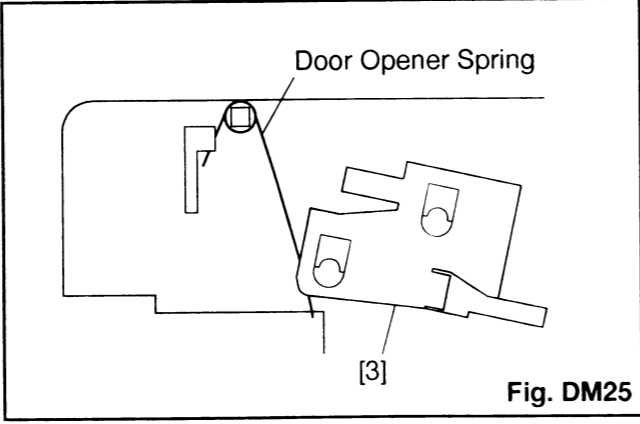
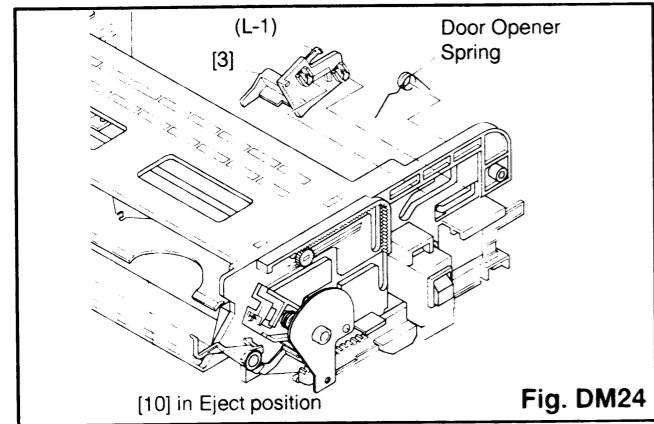
④

⑤

⑥

⑦

- ①: Follow steps in sequence. When reassembling, follow the steps in reverse order.  
These numbers are also used as identification (location) No. of parts in the figures.
- ②: Indicates the part to start disassembling with in order to disassemble the part in column 1.
- ③: Name of the part
- ④: Location of the part: T=Top B=Bottom R=Right L=Left
- ⑤: Figure Number
- ⑥: Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.  
P=Spring, W=Washer, C=Cut Washer, S=Screw, \*=Unhook, Unlock, Release, Unplug, or Desolder  
e.g. 2(C-2) = two Cut Washers (C-2), 2(L-2) = two Locking Tabs (L-2)
- ⑦: Adjustment Information for Installation (+): Refer to Deck Exploded Views for lubrication information.



# ALIGNMENT PROCEDURES OF MECHANISM

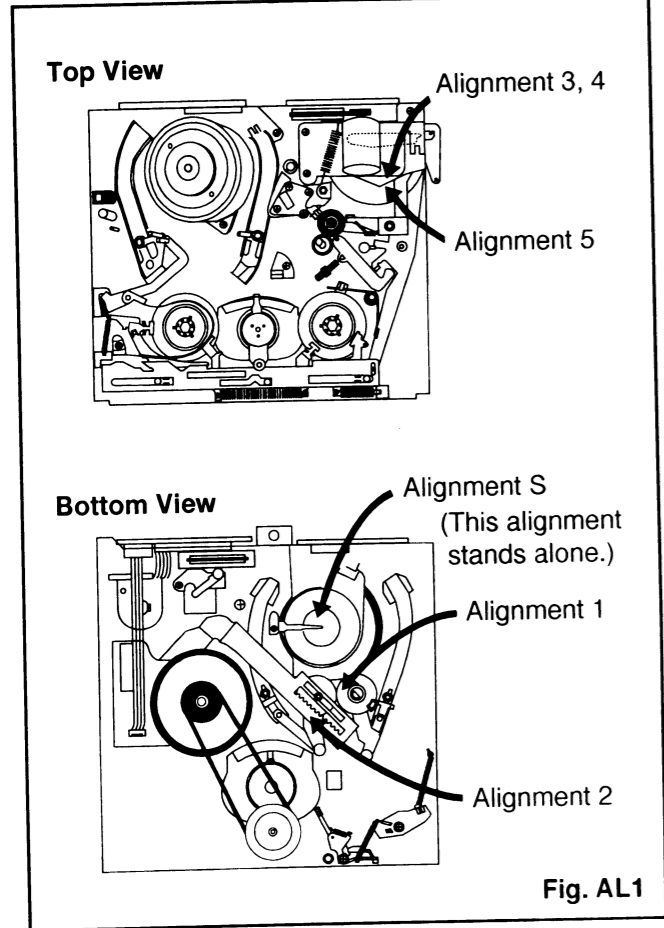
The following procedures describe how to align the individual gears and levers that make up the tape loading/unloading mechanism. Since information about the state of the mechanism is provided to the System Control Circuit only through the Mode Switch, it is essential that the correct relationship between individual gears and levers be maintained.

**All alignments are to be performed with the mechanism in Eject mode, in the sequence given.** Each procedure assumes that all previous procedures have been completed.

**IMPORTANT:**

If any one of these alignments is not performed properly, even if off by only one tooth, the unit will unload or stop and it may result in damage to the mechanical or electrical parts.

## Alignment points in Eject Position



### Alignment 1

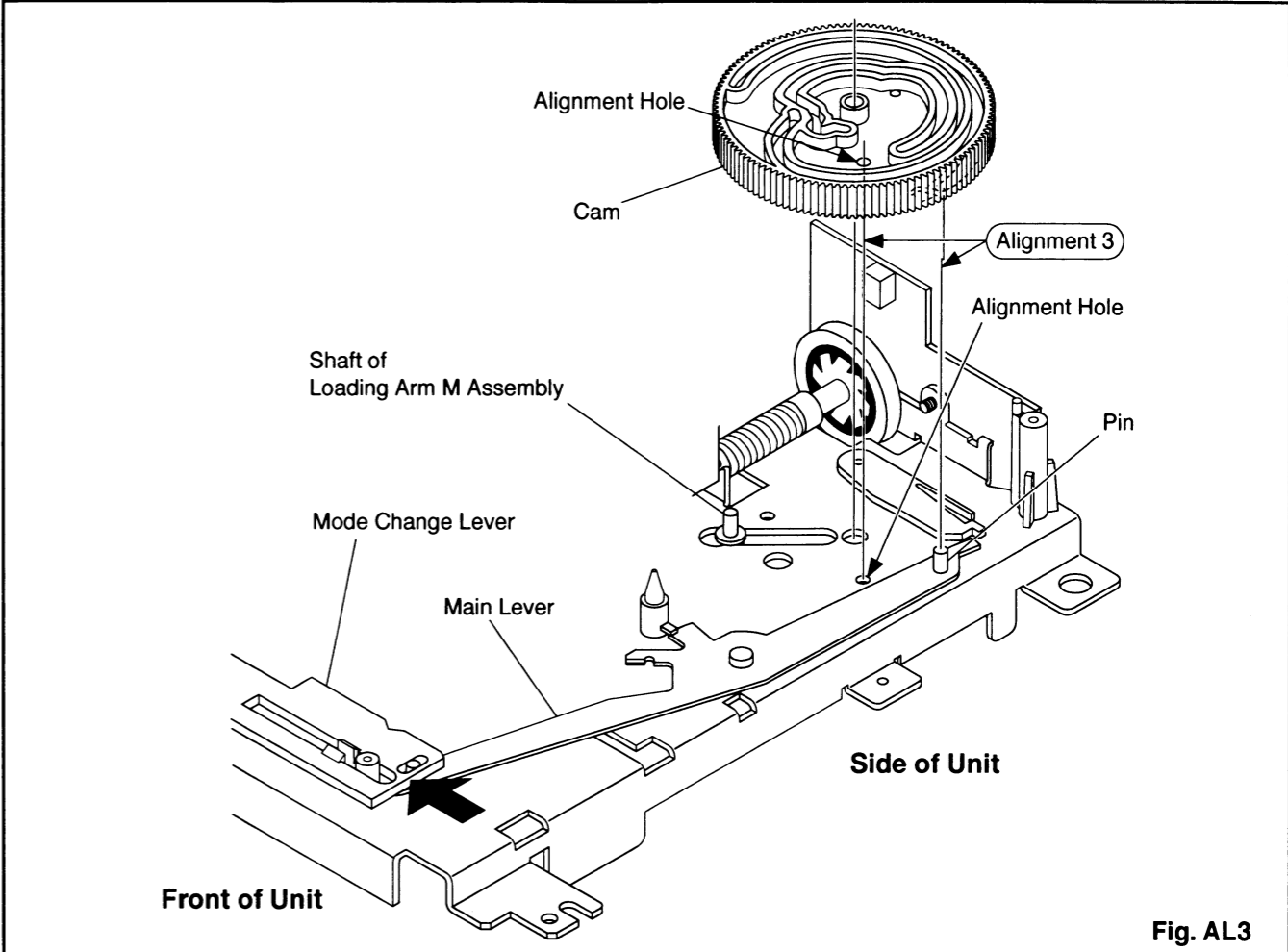
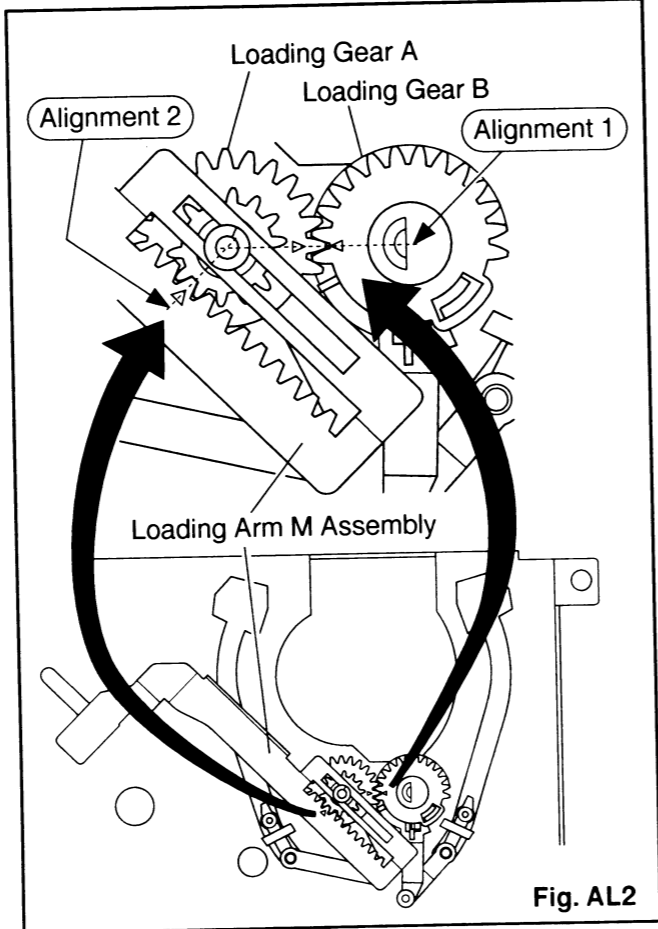
#### Loading Gears, A and B

1. Install Loading Gears A and B so that their triangle marks point to each other as shown in Fig. AL2.

### Alignment 2

#### Loading Arm M Assembly

1. Keeping Alignment 1 correct with the two triangles pointing to each other, install Loading Arm M Assembly so that its tooth with yet another triangle mark is in the position to align with Loading Gear A and the center of the shaft. See Fig. AL2.



### Alignment 3

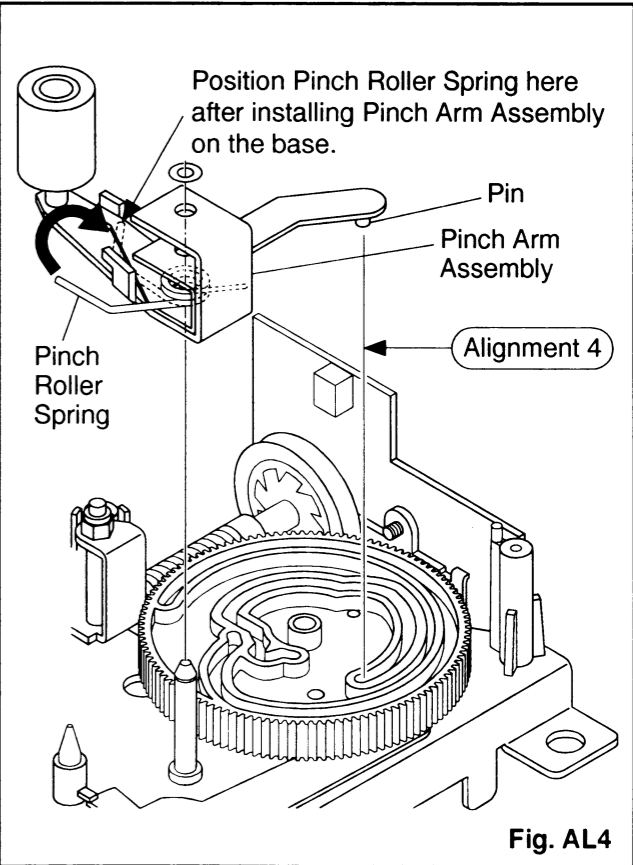
#### Cam

1. Make sure that the mechanism is in Eject mode so that the shaft of Loading Arm M Assembly is in the position shown in Fig. AL3.
2. Align the alignment hole of Cam with the alignment hole of the base, holding Cam just above the base.
3. Carefully keeping these two holes aligned, install Cam while pushing Mode Change Lever in the direction of the arrow. Mode Change Lever must be pushed to make the pin on Main Lever fit in the proper groove in lower Cam.
4. After installing Cam, make sure that the alignment hole of Cam is still aligned with the base hole and that the pin on Main Lever is inserted into the proper groove of lower Cam as specified in Fig. AL3.

### Alignment 4

#### Pinch Roller Arm Assembly

1. Ensure that the pin of Pinch Roller Arm Assembly is positioned in the end of the groove of upper Cam as shown in Fig. AL4.



Alignment 5

Cassette Drive Lever Assembly

1. Ensure that the pin of Cassette Drive Lever Assembly is positioned in the groove of upper Cam as shown in Fig. AL5.

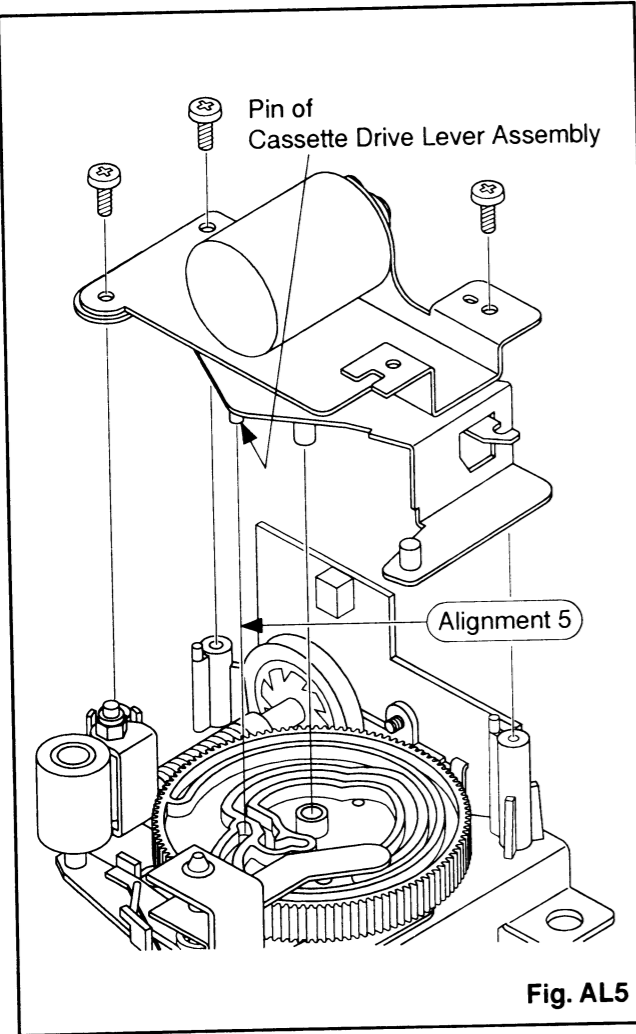


Fig. AL5

Alignment S

This alignment can be performed independently of any other alignment.

Ground Brush Assembly

1. Check to see if Ground Brush Assembly is properly set in a position equal to or just less than 1mm (0.04 inch) (but never more than 1 mm or 0.04 inch), as measured from the center of the brush to the center of the Cylinder Shaft as shown in Fig. AL6.
2. If this measurement exceeds 1mm (0.04 inch), loosen and refasten the screw of Ground Brush Assembly. If this is not enough and further adjustment is necessary, loosen and refasten the three screws of Cylinder Assembly. These three screws are shown in Fig. DM18 in DISASSEMBLY/ASSEMBLY PROCEDURES OF DECK MECHANISM.

**Note:** DO NOT install Ground Brush Assembly in the opposite position (on the left side of the center of the Cylinder shaft), but always within a maximum of 1mm (0.04 inch) to the right side of the center of this shaft.

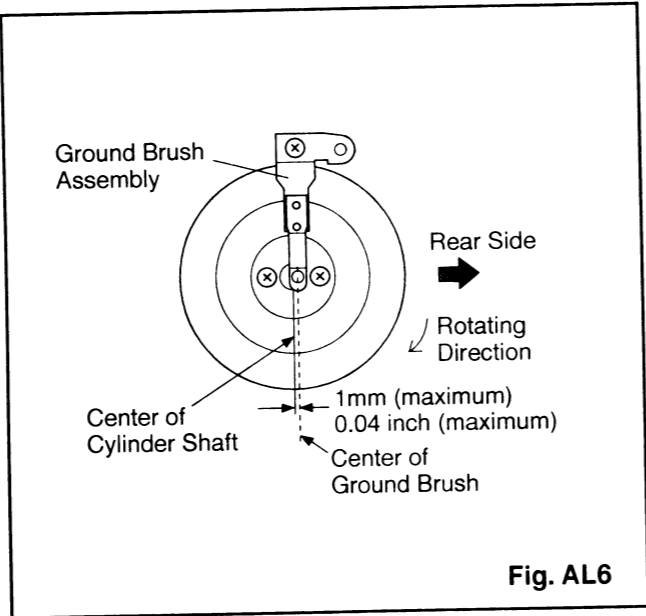


Fig. AL6

SCHEMATIC DIAGRAMS AND CBA'S

Standard Notes

WARNING

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark "⚠" in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Capacitor Temperature Markings

Mark	Capacity change rate	Standard temperature	Temperature range
(B)	±10%	20°C	-25~+85°C
(F)	+30 -80%	20°C	-25~+85°C
(SR)	±15%	20°C	-25~+85°C
(Z)	+30 -80%	20°C	-10~+70°C

Note:

- 1 Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
- 2 All resistance values are indicated in ohms ( $K=10^3$ ,  $M=10^6$ ).
- 3 Resistor wattages are 1/5W or 1/6W unless otherwise specified.
- 4 All capacitance values are indicated in  $\mu F$  ( $P=10^{-6}\mu F$ ).
- 5 All voltages are DC voltages unless otherwise specified.
- 6 Electrical parts such as capacitors, connectors, diodes, IC's, transistors, resistors, switches, and fuses are identified by four digits. The first two digits are not shown for each component. In each block of the diagram, there is a note such as shown below to indicate these abbreviated two digits.

TUNER BLOCK SYMBOL NO. 70\*\*

Example: "C08" in this "TUNER BLOCK" is C7008.

Capacitors and transistors are represented by the following symbols.

CBA Symbols

(Top View) (Bottom View)

: : Electrolytic Capacitor

(Bottom View)

: Transistor or Digital Transistor

E C B

(Top View)

NPN Transistor

E C B

(Top View)

PNP Transistor

E C B

(Top View)

NPN Digital Transistor

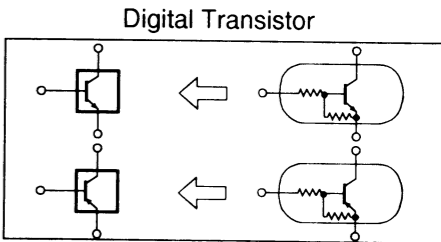
E C B

(Top View)

PNP Digital Transistor

E C B

Schematic Diagram Symbols



PB-Y SIGNAL    PB-C SIGNAL    REC-Y SIGNAL    REC-C SIGNAL    Mode : SP/REC

**HEAD AMP CBA**

**CN3501**  
 15 D-PG  
 14 V-REF  
 13 D-FG  
 12 AL+12V(M)  
 11 D-CONT  
 10 D-GND  
 9 FE-H GND  
 8 FE-H  
 7 AL+5V  
 6 V-ENV  
 5 C-PB  
 4 Y-PB  
 3 Y/C-REC  
 2 GND  
 1 RF-SW

**CL3502**  
 6 D-PG  
 5 V-REF  
 4 D-FG  
 3 AL+12V(M)  
 2 D-CONT  
 1 D-GND

**CN3503**  
 2 FE-H GND  
 1 FE-H

**CN3502**  
 5 GND  
 4 V(L)  
 3 V-COM  
 2 V(R)  
 1 NC

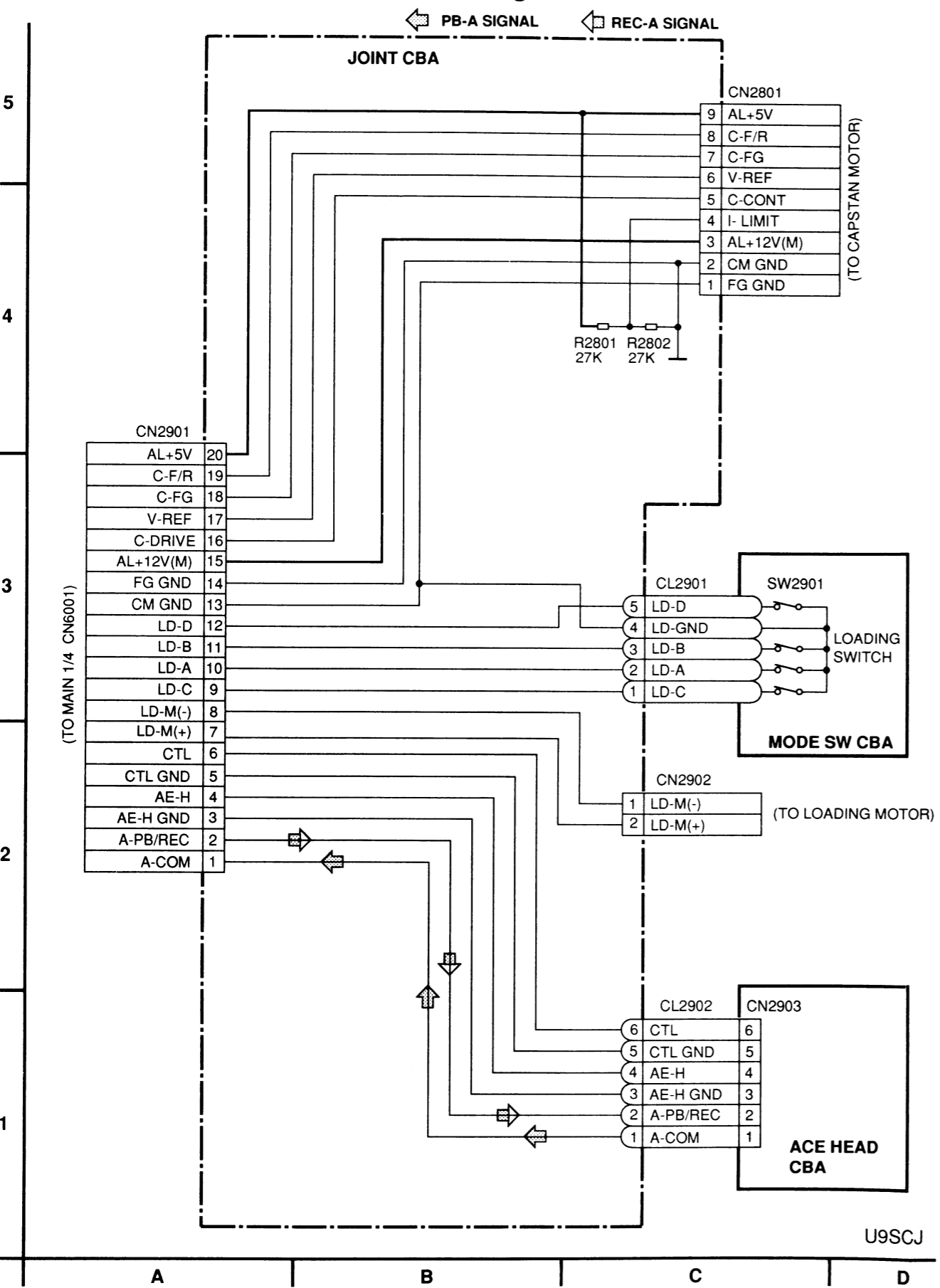
**HEAD AMP BLOCK SYMBOL No.35\*\***

**IC01 LA7376 (VIDEO HEAD AMP)**  
 1 4.7 (0)  
 2 1.5 (0)  
 3 0.6 (4.8)  
 4 1.8 (0)  
 5 0 (3.0)  
 6 2.2 (0.1)  
 7 0.8 (1.3)  
 8 1.9 (0)

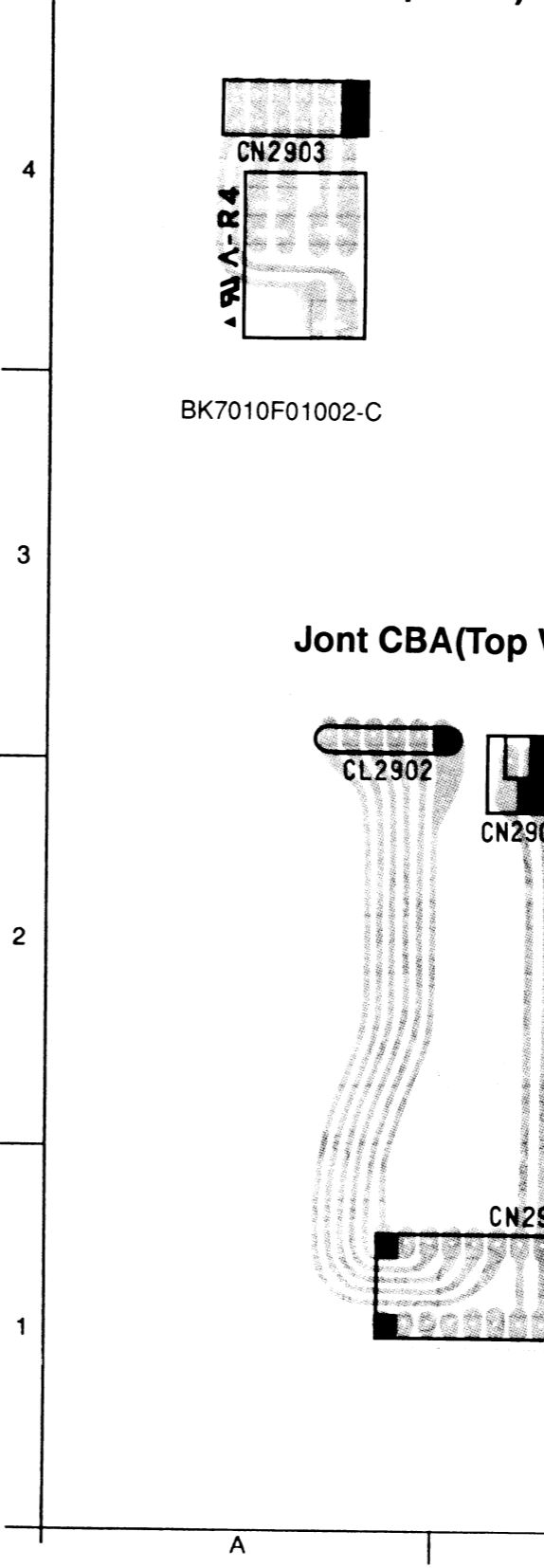
R01 22K  
 R02 8.2K  
 C01 0.1  
 C02 100/6.3  
 C03 0.22 /50  
 C04 0.01  
 C05 0.01  
 C06 0.01  
 C07 0.1 (F)  
 C09 0.1 (F)  
 C13 15P  
 R03 1K  
 R04 5.6K  
 R05 33K

U9SC2HE

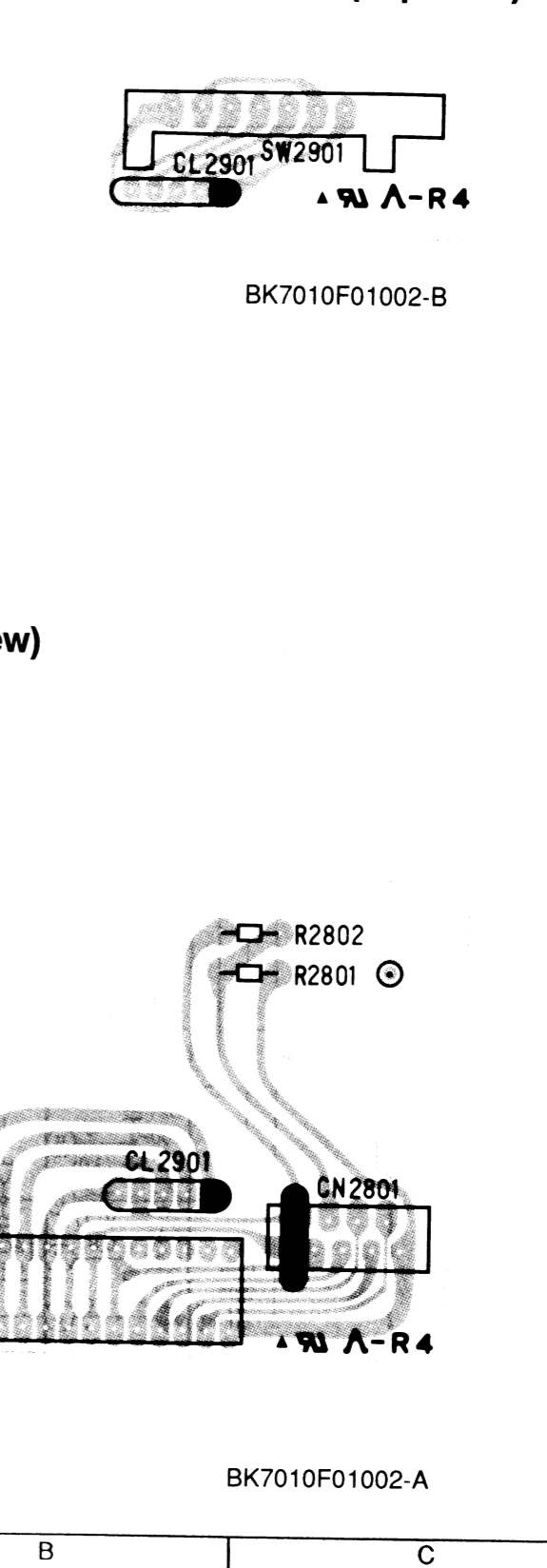
Joint/Mode SW/Ace Head Schematic Diagram



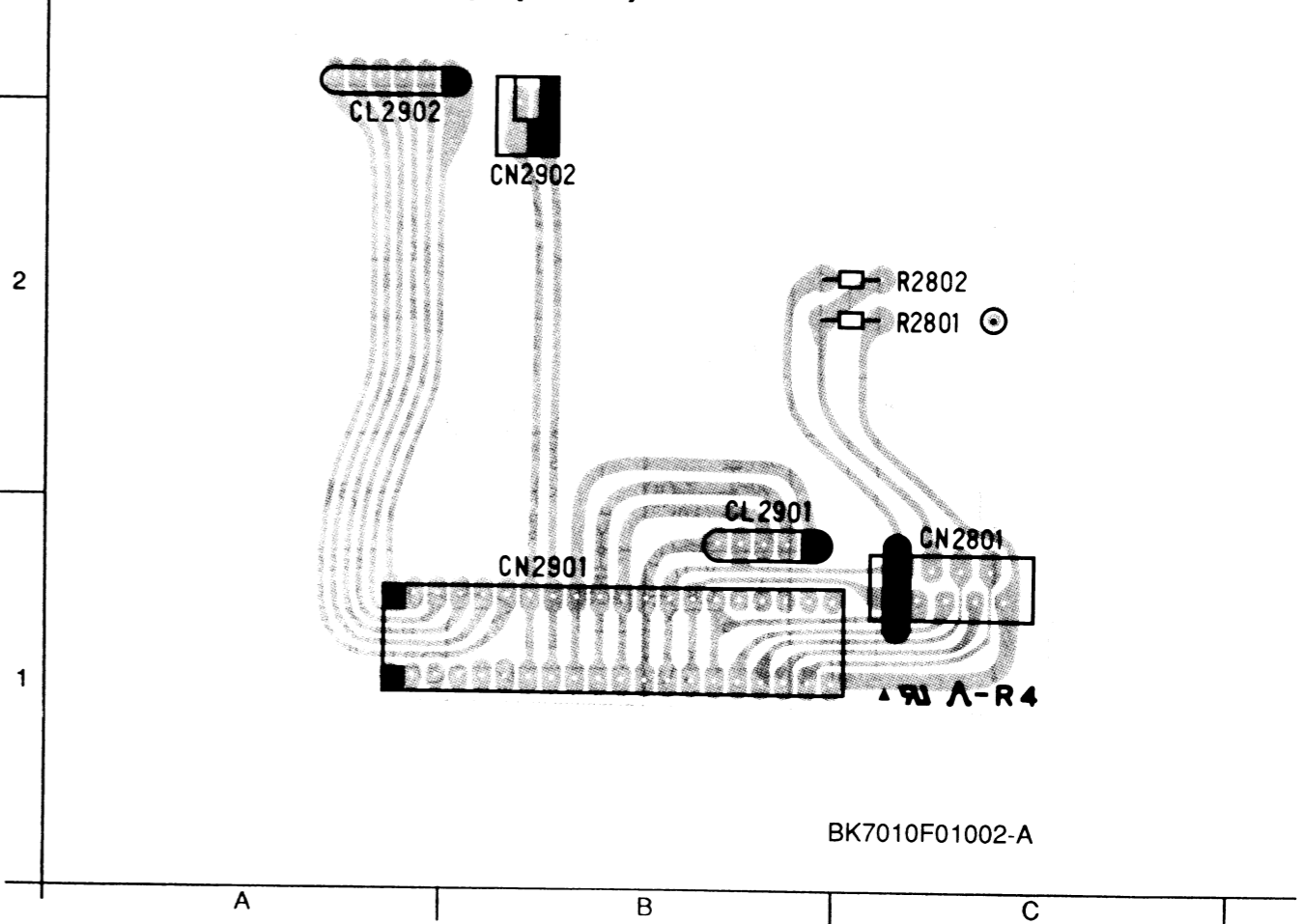
ACE Head CBA(Top View)



Mode SW CBA(Top View)



Jont CBA(Top View)



# EXPLODED VIEWS AND PARTS LIST SECTION

## VIDEO CASSETTE RECORDER

### V-8008CM(N) / V-8008SA(N)

Sec. 3: Exploded views  
and Parts List Section

● Exploded views

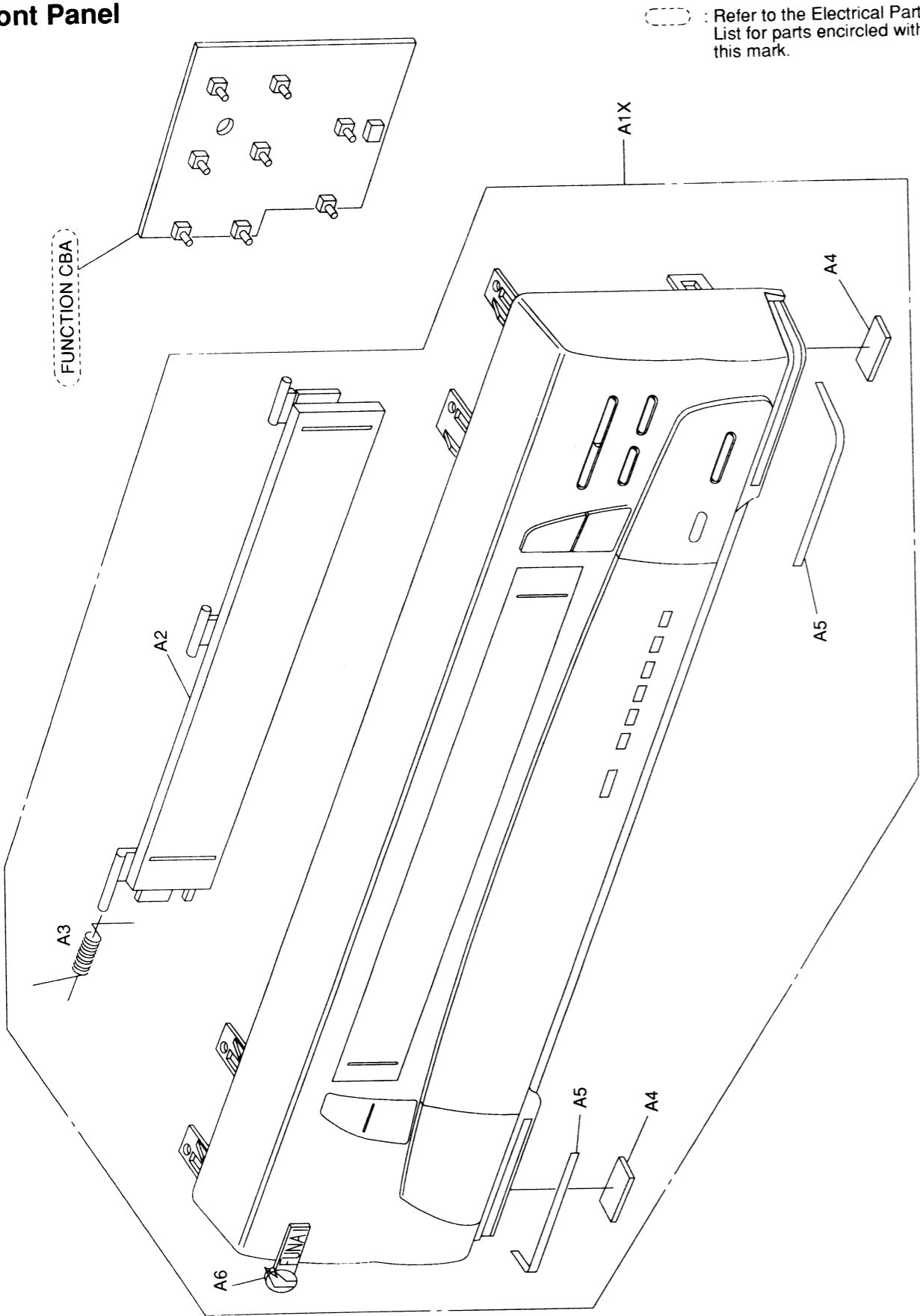
● Parts List

#### TABLE OF CONTENTS

Exploded Views .....	3-1-1
Mechanical Parts List.....	3-2-1
Electrical Parts List .....	3-3-1
Deck Mechanical Parts List .....	3-4-1
Deck Electrical Parts List .....	3-5-1

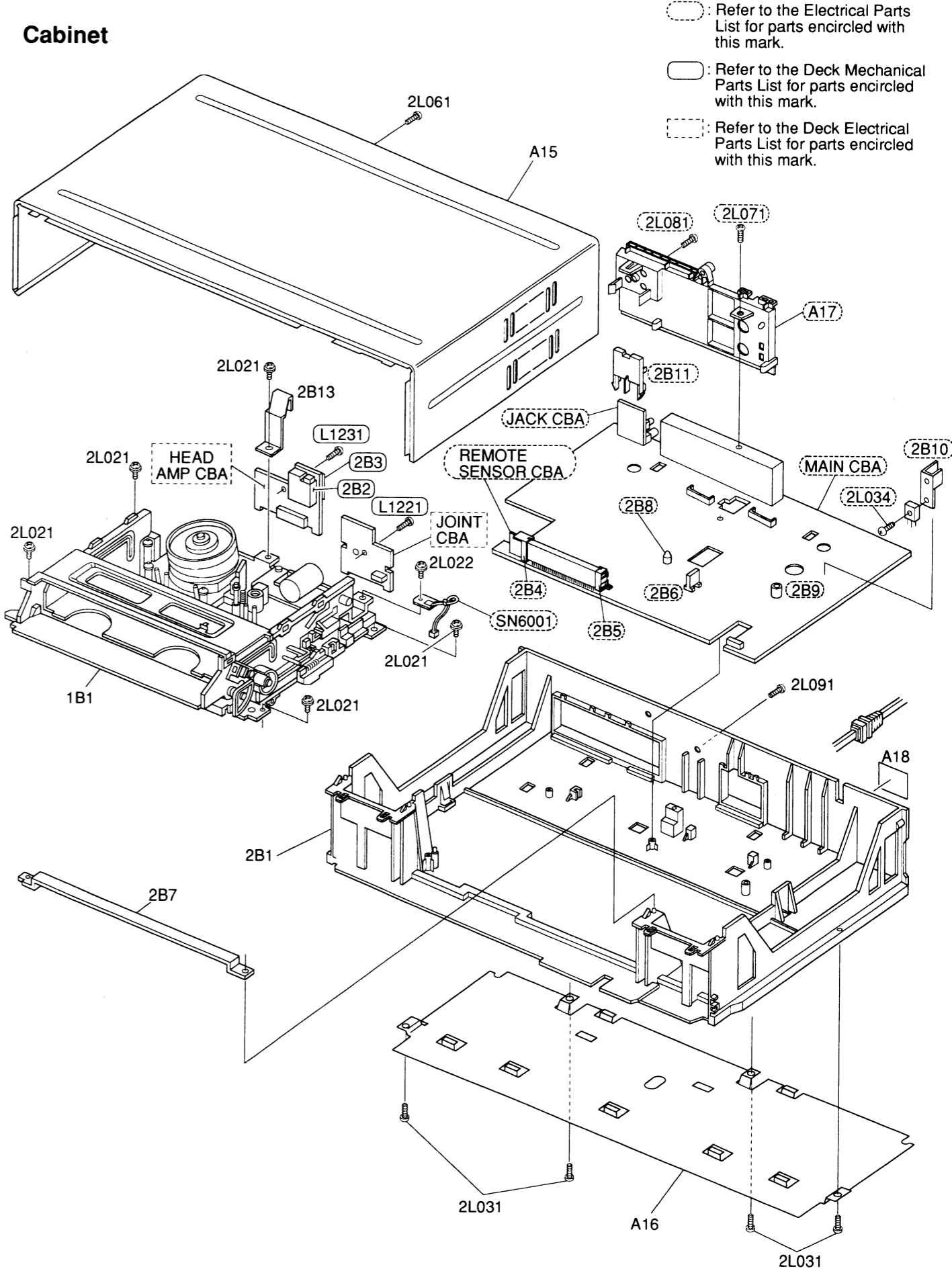
EXPLODED VIEWS

Front Panel



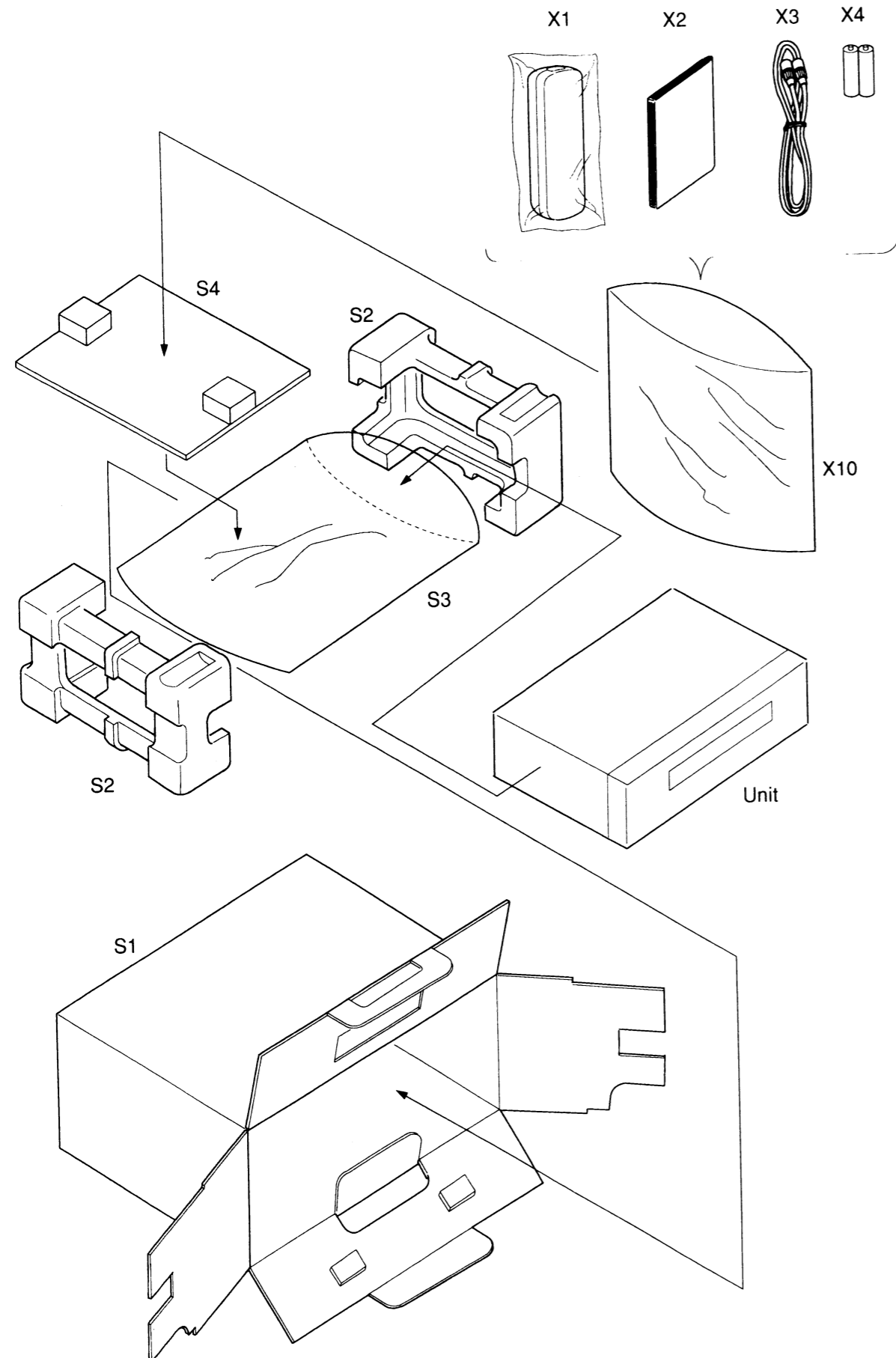
○ : Refer to the Electrical Parts List for parts encircled with this mark.

Cabinet



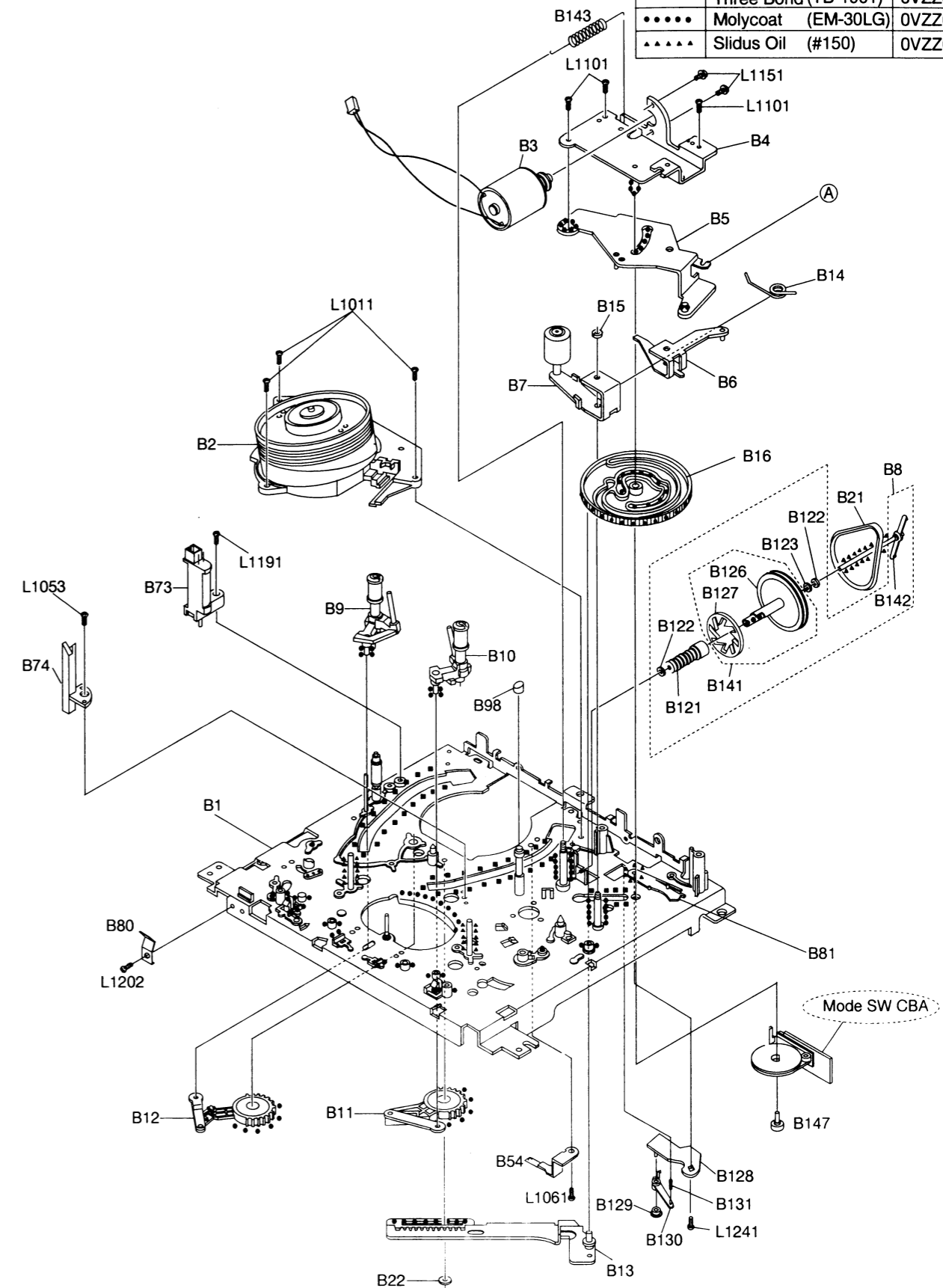
○ : Refer to the Electrical Parts List for parts encircled with this mark.  
○ : Refer to the Deck Mechanical Parts List for parts encircled with this mark.  
○ : Refer to the Deck Electrical Parts List for parts encircled with this mark.


## Packing



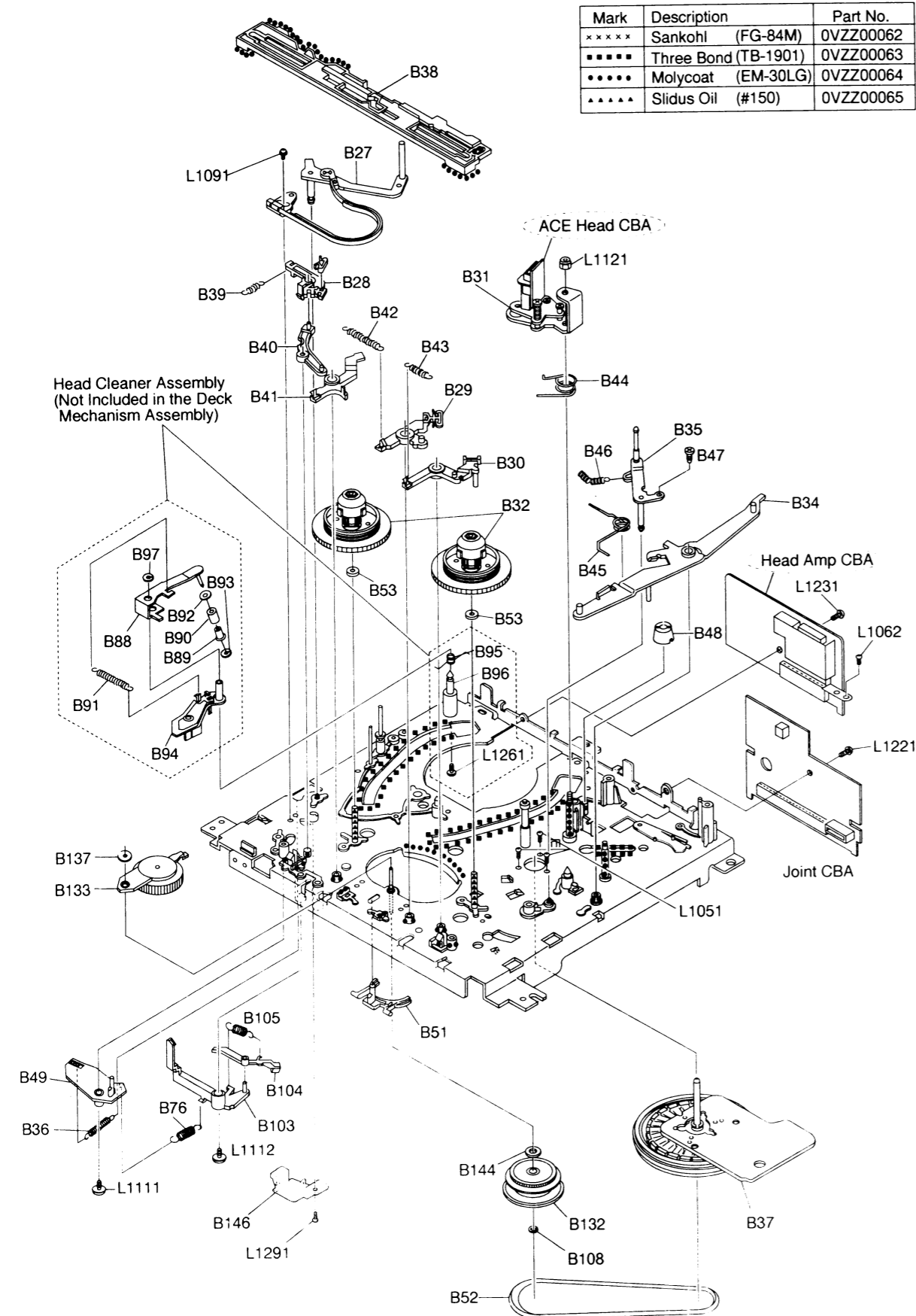
### Deck Mechanism View 1

Mark	Description	Part No.
× × × × ×	Sankohl (FG-84M)	0VZZ00062
■ ■ ■ ■ ■	Three Bond (TB-1901)	0VZZ00063
● ● ● ● ●	Molycoat (EM-30LG)	0VZZ00064
▲ ▲ ▲ ▲ ▲	Slidus Oil (#150)	0VZZ00065



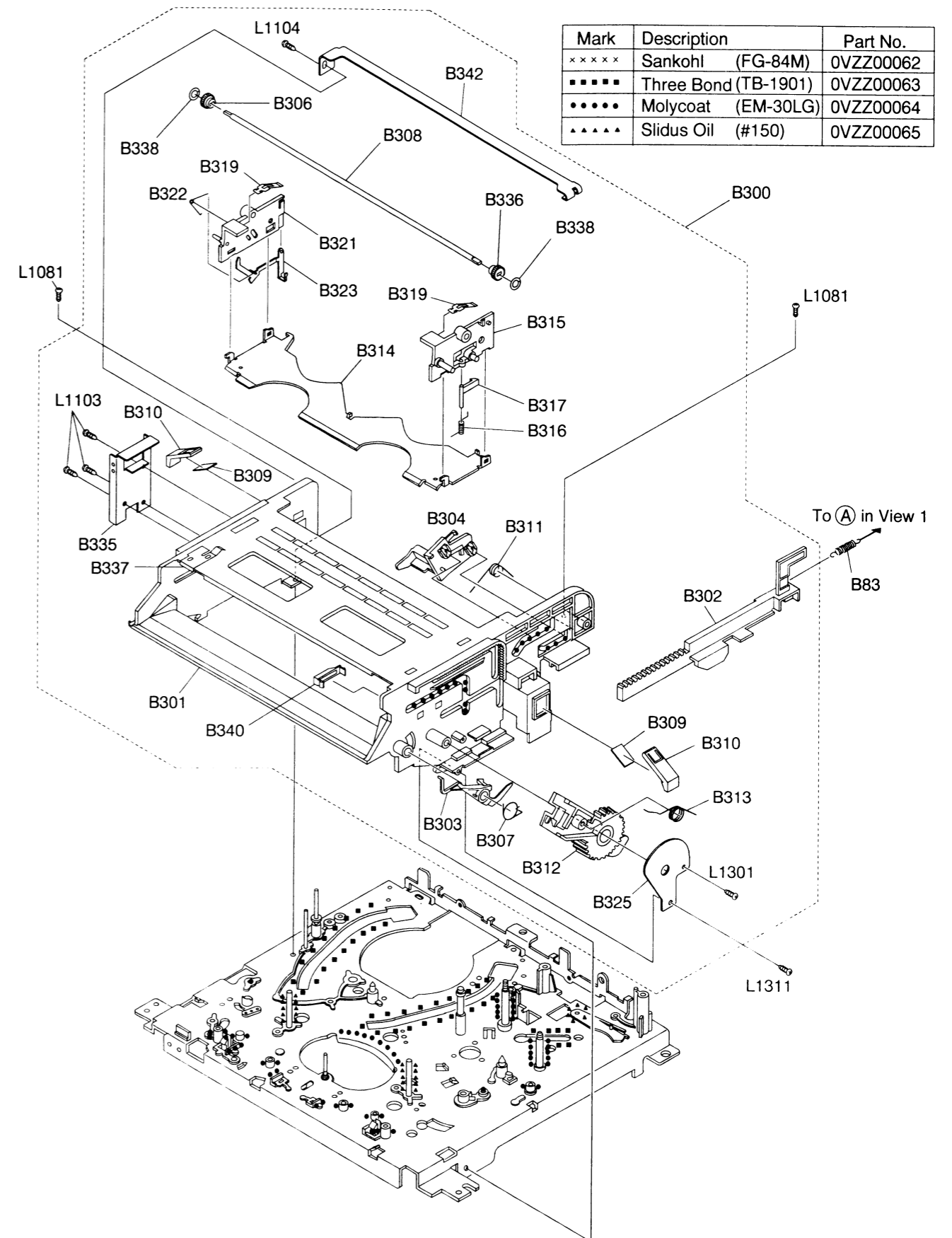
 See the Deck Electrical Parts List.

### Deck MechanismView 2




See the Deck Electrical Parts List.

### Deck Mechanism View 3







To (A) in View 1

MECHANICAL PARTS LIST

**PRODUCT SAFETY NOTE:** Products marked with a  have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.


**Note:**  
V-8008CM(N) Comparison Charts.

TYPE	TYPE A	TYPE B
SERIAL NO.	H42410001 ~ H42422000 H44422001A ~ H44479750A H04579751A ~ H**595000A	H45310001~ H**532000

Ref. No.	Description	Part No.
A 1X	FRONT ASSEMBLY (V-8008CM(N) only)	OVM201603
A 1X	FRONT ASSEMBLY (V-8008SA(N) only)	OVM201626
A 2	DOOR, CASSETTE	OVM406031
A 3	SPRING, DOOR	OVM403265
A 4	FOOT	OVM403657
A 5	PLATE, FOOT	OVM404901
A 6	BADGE	6D52254
A 15	CASE, TOP	OVM100491
A 16	PANEL, BOTTOM(U7-PAL/LC)	OVM201359
A 18 	LABEL, RATING (V-8008CM(N) only)	OVM404957
A 18 	LABEL, RATING (V-8008SA(N) only)	OVM405657
1B 1	DECK ASSEMBLY (V-8008CM(N) only)	N3102XN
1B 1	DECK ASSEMBLY (V-8008SA(N) only)	N3103XN
2B 1	VIDEO TRAY(U7 PAL/LC)	OVM000052B
2B 7	HOLDER, DECK	OVM302182A
2B 13	DECK SUPPORTER	OVM404958
2L 021	SCREW, P-TIGHT 3X10 WASHER HEAD+	GCMP3100
2L 022	SCREW, P-TIGHT 3X10 WASHER HEAD+	GCMP3100
2L 031	SCREW, A-RAMI-TIGHT M3X10 BIND+	DZM23100
2L 061	SCREW, P-TIGHT 4X12 BIND HEAD+	GBKP4120
2L 091	SCREW, A-TIGHT M3X8 BIND HEAD+	DBK13080
PACKING		
S 1	GIFT BOX CARTON (V-8008CM(N) only)	OVM406016
S 1	GIFT BOX CARTON (V-8008SA(N) only)	OVM406157
S 1	GIFT BOX CARTON (V-8008CM(N) only)	OVM302301
S 2	STYROFOAM	OVM201336
S 3	UNIT, BAG or	OVM403347
S 4	UNIT, BAG(CONTINUITY) WARNING PAD: STYROFOAM	0VZZ00001A OVM406113
ACCESSORY KIT		
X 1	REMOCON BOX RRS2000-6501CR (V-8008CM(N) Type A only)	UREMT28SR007
X 1	REMOCON BOX RRS2000-6501CR (V-8008SA(N) only)	UREMT36SR030
X 1	REMOCON BOX RRS2000-5503CR (V-8008CM(N) Type B only)	UREMT36SR028
X 2 	OWNER'S MANUAL (V-8008CM(N) only)	OVMN01485
X 2 	OWNER'S MANUAL (V-8008SA(N) only)	OVMN01499
X 3	RF CORD PAL 1.2M or	WPZ0122TM001
	RF CORD PAL 1.2M	WPZ0122TM004
X 4	DRY BATTERY UM-3(M) 2PCS PACK or	1790849
	DRY BATTERY UM3/RS6 2PCS PACK	579W099
X 10	ACCESSORY BAG230X370X0.025T	Z323370

Ref. No.	Description	Part No.
HEAD CLEANING BLOCK		
B 88	CLEANING CALKING ASSEMBLY	OVM403982
B 89	CLEANING BEARING	OVM403208
B 90	CLEANING ROLLER	OVM403613
B 91	CLEANING SPRING	OVM403614
B 92	P.S.W7.5X2.1X0.5T	OVM403615
B 93	CUT P.S.W6.1X1.6X0.5T	OVM403616
B 94	IR ARM	OVM301195F
B 95	SPRING IR	OVM403211
B 96	SHAFT CIR	OVM403214D
B 97	P.S.W A	OVM402624
L 1261	SCREW, SEMS M3X5 PAN HEAD+	CPM33050

ELECTRICAL PARTS LIST

**PRODUCT SAFETY NOTE:** Products marked with a  have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

Parts that not assigned part numbers (-----) are not available.



Tolerance of Capacitors and Resistors are noted with the following symbols.

C.....±0.25%	D.....±0.5%	F.....±1%
G.....±2%	J.....±5%	K.....±10%
M.....±20%	N.....±30%	Z.....+80/-20%

MCV CBA

Ref. No.	Description	Part No.
	MCV CBA (V-8008CM(N) only)	0VSA06691
	MCV CBA (V-8008SA(N) only)	0VSA06752
	Consists of the following:	
	MAIN CBA (MCV-A)	
	REMOTE SENSOR CBA (MCV-C)	
	REMOTE SENSOR CBA (MCV-D)	

MAIN CBA (MCV-A)

Ref. No.	Description	Part No.
	Consists of the following:	
CAPACITORS		
C 1001 	METALLIZED FILM CAP. 0.047µF/250V K or	CT2E473NC011
	METALLIZED FILM CAP. 0.047µF/250V M or	CT2E473MS001
	METALLIZED FILM CAP. 0.047µF/250V M or	CT2E473UN009
	METALLIZED FILM CAP. 0.047µF/275V K	CT2E473DT001
C 1003 	SAFETY CAP. 2200pH/400V M	122Z011
C 1004	ELECTROLYTIC CAP. 100µF/400V M or	CA2H101NC008
	ELECTROLYTIC CAP. 100µF/400V M or	CA2H101SP025
	ELECTROLYTIC CAP. 100µF/400V M or	CA2H101EA008
	ELECTROLYTIC CAP. 100µF/400V M	CA2H101MS002
C 1005	CERAMIC CAP. B K 0.01µF/500V or	CCD2JKP0B103
	CERAMIC CAP. 0.01µF/500V or	CA2J103TU001
	CERAMIC CAP. B K 0.01µF/500V	CCD2JKD0B103
C 1006	CERAMIC CAP. SL J 180pH/1KV or	CA3A181MR506
	CERAMIC CAP. SL K 180pH/1KV	CCD3AKPSL181
C 1007	SEMICONDUCTOR CAP. SR K 0.047µF/25V or	CDA1EKS0X473
	SEMICONDUCTOR CAP. SR K 0.047µF/25V	12Y2473S
C 1008	CERAMIC CAP. X K 0.0033µF/16V	3X4C332T
C 1009	CERAMIC CAP. Y M 8200pH/16V	3Y4D822T
C 1010	SEMICONDUCTOR CAP.SR K 0.0082µF/25V or	CDA1EKS0X822
	SEMICONDUCTOR CAP. SR K 0.0082µF/25V	12Y2822S
C 1011	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	126F475S
C 1012	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMAUDL471
	ELECTROLYTIC CAP. 470µF/16V M	126C477S
C 1013	ELECTROLYTIC CAP. 22µF/50V M or	CE1JMASDL220
	ELECTROLYTIC CAP. 22µF/50V M	126F226S
C 1014	ELECTROLYTIC CAP. 330µF/16V M or	CE1CMASDL331
	ELECTROLYTIC CAP. 330µF/16V M	126C337S
C 1015	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMAUDL471
	ELECTROLYTIC CAP. 470µF/16V M	126C477S
C 1016	ELECTROLYTIC CAP. 1000µF/10V M or	CE1AMAUDL102
	ELECTROLYTIC CAP. 1000µF/10V M	126B108S
C 1017	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASDL101
	ELECTROLYTIC CAP. 100µF/10V M	126B107S
C 1018	CERAMIC CAP. F Z 0.01µF/50V or	CCD1JZS0F103
	CERAMIC CAP. F Z 0.01µF/50V	12F3103S
C 1019	SEMICONDUCTOR CAP. SR K 0.047µF/25V or	CDA1EKS0X473

Ref. No.	Description	Part No.
	SEMICONDUCTOR CAP. SR K 0.047µF/25V	12Y2473S
C 1021	CERAMIC CAP. B J 150pH/50V	3B41151T
C 1501	ELECTROLYTIC CAP. 0.47µF/50V M H7 or	CE1JMASSLR47
	ELECTROLYTIC CAP. 0.47µF/50V M H7	526W474S
C 1505	CERAMIC CAP. SL J 47pH/50V	3S41470T
C 3001	CERAMIC CAP. SL J 39pH/50V	3S41390T
C 3002	ELECTROLYTIC CAP. 0.1µF/50V M H7 or	CE1JMASSL0R1
	ELECTROLYTIC CAP. 0.1µF/50V M H7	526W104S
C 3003	CERAMIC CAP. B J 150pH/50V	3B41151T
C 3004	CERAMIC CAP. SL J 68pH/50V	3S41680T
C 3005	CERAMIC CAP. F Z 0.01µF/25V or	CDA1EZT0F103
	CERAMIC CAP. F Z 0.01µF/16V	1220842T
C 3006	ELECTROLYTIC CAP. 0.1µF/50V M H7 or	CE1JMASSL0R1
	ELECTROLYTIC CAP. 0.1µF/50V M H7	526W104S
C 3007	CERAMIC CAP. F Z 0.022µF/25V or	122Z122T
	CERAMIC CAP. F Z 0.022µF/25V	1220843T
C 3008	CERAMIC CAP. SL J 39pH/50V (V-8008CM(N) only)	3S41390T
C 3009	CERAMIC CAP. SL J 33pH/50V	3S41330T
C 3011	CERAMIC CAP. SL J 33pH/50V	3S41330T
C 3012	CERAMIC CAP. SL J 27pH/50V	3S41270T
C 3013	CERAMIC CAP. SL J 27pH/50V	3S41270T
C 3014	CERAMIC CAP. Y M 0.01µF/16V or	CDA1CMT0Y103
	CERAMIC CAP. Y M 0.01µF/16V	3Y4D103T
C 3015	CERAMIC CAP. B J 220pH/50V	3B41221T
C 3016	CERAMIC CAP. SL J 56pH/50V	3S41560T
C 3017	CERAMIC CAP. B J 220pH/50V	3B41221T
C 3018	CERAMIC CAP. SL J 47pH/50V (V-8008CM(N) only)	3S41470T
C 3018	CERAMIC CAP. SL J 33pH/50V (V-8008SA(N) only)	3S41330T
C 3019	CERAMIC CAP. SL J 18pH/50V (V-8008SA(N) only)	3S41180T
C 3020	CERAMIC CAP. B J 180pH/50V	3B41181T
C 3021	CERAMIC CAP. SL J 33pH/50V (V-8008CM(N) only)	3S41330T
C 3021	CERAMIC CAP. SL J 22pH/50V (V-8008SA(N) only)	3S41220T
C 3022	CERAMIC CAP. SL J 47pH/50V	3S41470T
C 3023	CERAMIC CAP. SL J 82pH/50V (V-8008CM(N) only) or	CCD1JSSSL820
	CERAMIC CAP. SL J 82pH/50V (V-8008CM(N) only)	1270820S
C 3023	CERAMIC CAP. SL J 56pH/50V (V-8008SA(N) only) or	CCD1JSSSL560
	CERAMIC CAP. SL J 56pH/50V (V-8008SA(N) only)	1270560S
C 3024	CERAMIC CAP. SL J 22pH/50V	3S41220T
C 3025	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	526W105S
C 3026	CERAMIC CAP. B J 390pH/50V	3B41391T
C 3027	CERAMIC CAP. SL J 18pH/50V or	CCD1JSSSL180

Ref. No.	Description	Part No.
C 3028	CERAMIC CAP. SL J 18pH/50V	1270180S
C 3029	CERAMIC CAP. B J 100pH/50V	3B41101T
	ELECTROLYTIC CAP. 10μF/16V M H7 or	CE1CMASSL100
	ELECTROLYTIC CAP. 10μF/16V M H7	526T106S
C 3030	ELECTROLYTIC CAP. 10μF/16V M H7 or	CE1CMASSL100
	ELECTROLYTIC CAP. 10μF/16V M H7	526T106S
C 3031	CERAMIC CAP. SL J 15pH/50V or	CCD1JSSSL150
	CERAMIC CAP. SL J 15pH/50V	1270150S
C 3032	CERAMIC CAP. F Z 0.01μF/25V or	CDA1EZT0F103
	CERAMIC CAP. F Z 0.01μF/16V	1220842T
C 3033	CERAMIC CAP. F Z 0.022μF/25V or	122Z122T
	CERAMIC CAP. F Z 0.022μF/25V	1220843T
C 3034	CERAMIC CAP. F Z 0.022μF/25V or	122Z122T
	CERAMIC CAP. F Z 0.022μF/25V	1220843T
C 3035	ELECTROLYTIC CAP. 1μF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1μF/50V M H7	526W105S
C 3036	ELECTROLYTIC CAP. 1μF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1μF/50V M H7	526W105S
C 3037	CERAMIC CAP. F Z 0.01μF/25V or	CDA1EZT0F103
	CERAMIC CAP. F Z 0.01μF/16V	1220842T
C 3038	ELECTROLYTIC CAP. 10μF/16V M H7 or	CE1CMASSL100
	ELECTROLYTIC CAP. 10μF/16V M H7	526T106S
C 3039	ELECTROLYTIC CAP. 4.7μF/50V M H7 or	CE1JMASSL4R7
	ELECTROLYTIC CAP. 4.7μF/50V M H7	526W475S
C 3040	ELECTROLYTIC CAP. 4.7μF/25V M H7 or	CE1EMASSL4R7
	ELECTROLYTIC CAP. 4.7μF/25V M H7	526U475S
C 3043	ELECTROLYTIC CAP. 220μF/6.3V M H7 or	CE0KMASSL221
	ELECTROLYTIC CAP. 220μF/6.3V M H7	526R227S
C 3044	CERAMIC CAP. F Z 0.1μF/50V	3F40104T
C 3045	CERAMIC CAP. F Z 0.1μF/50V	3F40104T
C 3046	SEMICONDUCTOR CAP. SR K 0.022μF/25V or	CDA1EKS0X223
	SEMICONDUCTOR CAP. SR K 0.022μF/25V	12Y2223S
C 3047	ELECTROLYTIC CAP. 4.7μF/50V M H7 or	CE1JMASSL4R7
	ELECTROLYTIC CAP. 4.7μF/50V M H7	526W475S
C 3048	ELECTROLYTIC CAP. 1μF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1μF/50V M H7	526W105S
C 3049	CERAMIC CAP. F Z 0.01μF/25V or	CDA1EZT0F103
	CERAMIC CAP. F Z 0.01μF/16V	1220842T
C 3050	CERAMIC CAP. F Z 0.01μF/25V or	CDA1EZT0F103
	CERAMIC CAP. F Z 0.01μF/16V	1220842T
C 3051	ELECTROLYTIC CAP. 1μF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1μF/50V M H7	526W105S
C 3052	CERAMIC CAP. F Z 0.01μF/50V or	CCD1JZS0F103
	CERAMIC CAP. F Z 0.01μF/50V	12F3103S
C 3053	CERAMIC CAP. F Z 0.01μF/50V or	CCD1JZS0F103
	CERAMIC CAP. F Z 0.01μF/50V	12F3103S
C 3054	SEMICONDUCTOR CAP. F Z 0.1μF/25V or	CDA1EZS0F104
	SEMICONDUCTOR CAP. F Z 0.1μF/25V	1220520S
C 3055	CERAMIC CAP. F Z 0.022μF/25V or	122Z122T
	CERAMIC CAP. F Z 0.022μF/25V	1220843T
C 3056	ELECTROLYTIC CAP. 22μF/6.3V M H7 or	CE0KMASSL220
	ELECTROLYTIC CAP. 22μF/6.3V M H7	526R226S
C 3057	ELECTROLYTIC CAP. 1μF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1μF/50V M H7	526W105S
C 3058	CERAMIC CAP. SL J 15pH/50V or	CCD1JSSSL150
	CERAMIC CAP. SL J 15pH/50V	1270150S
C 3059	CERAMIC CAP. F Z 0.01μF/25V or	CDA1EZT0F103
	CERAMIC CAP. F Z 0.01μF/16V	1220842T
C 3062	ELECTROLYTIC CAP. 0.1μF/50V M or	CE1JMASDL0R1
	ELECTROLYTIC CAP. 0.1μF/50V M	126F104S
C 3063	CERAMIC CAP. B J 220pH/50V	3B41221T
C 3064	CERAMIC CAP. F Z 0.047μF/50V	3F40473T
C 3069	CERAMIC CAP. B J 0.001μF/50V	3B41102T
C 3070	CERAMIC CAP. F Z 0.022μF/25V or	122Z122T
	CERAMIC CAP. F Z 0.022μF/25V	1220843T

\* Mylar is a registered trademark of E. I. DuPont de Nemours and Company.

Ref. No.	Description	Part No.
C 3090	ELECTROLYTIC CAP. 470μF/6.3V M or	CE0KMAASDL471
	ELECTROLYTIC CAP. 470μF/6.3V M	126A477S
C 3091	ELECTROLYTIC CAP. 100μF/16V M or	CE1CMASDL101
	ELECTROLYTIC CAP. 100μF/16V M	126C107S
C 3101	CERAMIC CAP. F Z 0.01μF/50V (V-8008CM(N) only) or	CCD1JZS0F103
	CERAMIC CAP. F Z 0.01μF/50V (V-8008CM(N) only)	12F3103S
C 3102	CERAMIC CAP. F Z 0.01μF/50V (V-8008CM(N) only) or	CCD1JZS0F103
	CERAMIC CAP. F Z 0.01μF/50V (V-8008CM(N) only)	12F3103S
C 3103	ELECTROLYTIC CAP. 2.2μF/50V M H7 (V-8008CM(N) only) or	CE1JMASSL2R2
	ELECTROLYTIC CAP. 2.2μF/50V M H7 (V-8008CM(N) only)	526W225S
C 3104	ELECTROLYTIC CAP. 100μF/6.3V M (V-8008CM(N) only) or	CE0KMAASDL101
	ELECTROLYTIC CAP. 100μF/6.3V M (V-8008CM(N) only)	126A107S
C 3105	ELECTROLYTIC CAP. 3.3μF/50V M (V-8008CM(N) only) or	CE1JMASDL3R3
	ELECTROLYTIC CAP. 3.3μF/50V M (V-8008CM(N) only)	126F335S
C 3106	ELECTROLYTIC CAP. 3.3μF/50V M (V-8008CM(N) only) or	CE1JMASDL3R3
	ELECTROLYTIC CAP. 3.3μF/50V M (V-8008CM(N) only)	126F335S
C 4001	CERAMIC CAP. B K 1000pH/50V or	CCD1JKS0B102
	CERAMIC CAP. B K 0.001μF/50V	12B3102S
C 4002	CERAMIC CAP. X K 0.0018μF/16V (V-8008SA(N) only) or	3X4C182T
C 4003	SEMICONDUCTOR CAP. SR K 0.01μF/25V or	CDA1EKS0X103
	SEMICONDUCTOR CAP. SR K 0.01μF/25V	12Y2103S
C 4004	ELECTROLYTIC CAP. 22μF/16V M H7 or	CE1CMASSL220
	ELECTROLYTIC CAP. 22μF/16V M H7	526T226S
C 4005	ELECTROLYTIC CAP. 10μF/16V M H7 or	CE1CMASSL100
	ELECTROLYTIC CAP. 10μF/16V M H7	526T106S
C 4006	CERAMIC CAP. F Z 0.1μF/50V	3F40104T
C 4007	ELECTROLYTIC CAP. 3.3μF/50V M or	CE1JMASDL3R3
	ELECTROLYTIC CAP. 3.3μF/50V M	126F335S
C 4008	SEMICONDUCTOR CAP. F Z 0.1μF/25V or	CDA1EZS0F104
	SEMICONDUCTOR CAP. F Z 0.1μF/25V	1220520S
C 4009	CERAMIC CAP. X K 0.0068μF/16V	3X4C682T
C 4010	ELECTROLYTIC CAP. 10μF/16V M H7 or	CE1CMASSL100
	ELECTROLYTIC CAP. 10μF/16V M H7	526T106S
C 4011	CERAMIC CAP. F Z 0.1μF/50V	3F40104T
C 4012	SEMICONDUCTOR CAP. F Z 0.1μF/25V or	CDA1EZS0F104
	SEMICONDUCTOR CAP. F Z 0.1μF/25V	1220520S
C 4013	ELECTROLYTIC CAP. 1μF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1μF/50V M H7	526W105S
C 4014	ELECTROLYTIC CAP. 10μF/16V M H7 or	CE1CMASSL100
	ELECTROLYTIC CAP. 10μF/16V M H7	526T106S
C 4015	ELECTROLYTIC CAP. 47μF/16V M H7 or	CE1CMASSL470
	ELECTROLYTIC CAP. 47μF/16V M H7	526T476S
C 4016	CERAMIC CAP. Y M 0.01μF/16V or	CDA1CMT0Y103
	CERAMIC CAP. Y M 0.01μF/16V	3Y4D103T
C 4017	CERAMIC CAP. Y M 0.01μF/16V or	CDA1CMT0Y103
	CERAMIC CAP. Y M 0.01μF/16V	3Y4D103T
C 4019	*MYLAR CAP. 0.047μF/100V J or	CMA2AJS00473
	MYLAR CAP. 0.047μF/100V J	1255473S
C 4020	CERAMIC CAP. Y M 0.01μF/16V or	CDA1CMT0Y103
	CERAMIC CAP. Y M 0.01μF/16V	3Y4D103T
C 4021	CERAMIC CAP. X K 0.0068μF/16V	3X4C682T
C 4022	CERAMIC CAP. X K 0.0027μF/16V	3X4C272T
C 4023	CERAMIC CAP. B J 220pH/50V	3B41221T
C 6002	ELECTROLYTIC CAP. 2.2μF/50V M H7 or	CE1JMASSL2R2
	ELECTROLYTIC CAP. 2.2μF/50V M H7	526W225S

Ref. No.	Description	Part No.
C 6003	CERAMIC CAP. F Z 0.047μF/50V	3F40473T
C 6004	CERAMIC CAP. SL J 10pH/50V	3S41100T
C 6005	CERAMIC CAP. SL J 15pH/50V	3S41150T
C 6006	CERAMIC CAP. F Z 0.1μF/50V	3F40104T
C 6007	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C 6008	ELECTROLYTIC CAP. 33μF/6.3V M	CE0KMAASDL330
C 6009	CERAMIC CAP. F Z 0.022μF/50V or	CCD1JZS0F223
	CERAMIC CAP. F Z 0.022μF/50V	12F3223S
C 6010	CERAMIC CAP. SL J 27pH/50V or	CCD1JSSSL270
	CERAMIC CAP. SL J 27pH/50V	1270270S
C 6011	CERAMIC CAP. SL J 27pH/50V or	CCD1JSSSL270
	CERAMIC CAP. SL J 27pH/50V	1270270S
C 6012	ELECTROLYTIC CAP. 330μF/6.3V M H7 or	CE0KMASSL331
	ELECTROLYTIC CAP. 330μF/6.3V M H7	526R337S
C 6013	CERAMIC CAP. F Z 0.022μF/50V or	CCD1JZS0F223
	CERAMIC CAP. F Z 0.022μF/50V	12F3223S
C 6014	SEMICONDUCTOR CAP. SR K 0.1μF/25V or	CDA1EKS0X104
	SEMICONDUCTOR CAP. SR K 0.1μF/25V	12Y2104S
C 6015	SEMICONDUCTOR CAP. SR K 0.1μF/25V or	CDA1EKS0X104
	SEMICONDUCTOR CAP. SR K 0.1μF/25V	12Y2104S
C 6016	ELECTROLYTIC CAP. 220μF/6.3V M or	CE0KMAASDL221
	ELECTROLYTIC CAP. 220μF/6.3V M	126A227S
C 6018	CERAMIC CAP. B K 1000pH/50V or	CCD1JKS0B102
	CERAMIC CAP. B K 0.001μF/50V	12B3102S
C 6019	CERAMIC CAP. B J 0.001μF/50V	3B41102T
C 6020	CERAMIC CAP. F Z 0.01μF/50V or	CCD1JZS0F103
	CERAMIC CAP. F Z 0.01μF/50V	12F3103S
C 6021	ELECTROLYTIC CAP. 22μF/16V M	CE1CMASDL220
C 6022	CERAMIC CAP. F Z 0.01μF/50V or	CCD1JZS0F103
	CERAMIC CAP. F Z 0.01μF/50V	12F3103S
C 6023	ELECTROLYTIC CAP. 47μF/6.3V M H7 or	CE0KMASSL470
	ELECTROLYTIC CAP. 47μF/6.3V M H7	526R476S
C 6024	CERAMIC CAP. SL J 82pH/50V or	CCD1JSSSL820
	CERAMIC CAP. SL J 82pH/50V	1270820S
C 6025	CERAMIC CAP. B J 0.001μF/50V	3B41102T
C 6027	CERAMIC CAP. F Z 0.01μF/25V or	CDA1EZT0F103
	CERAMIC CAP. F Z 0.01μF/16V	1220842T
C 6029	ELECTROLYTIC CAP. 10μF/16V M LL H7 or	CA1C100SP018
	ELECTROLYTIC CAP. 10μF/16V M LL H7	CE1CMASHL100
C 6030	ELECTROLYTIC CAP. 2.2μF/50V M H7 or	CE1JMASSL2R2
	ELECTROLYTIC CAP. 2.2μF/50V M H7	526W225S
C 6031	ELECTROLYTIC CAP. 10μF/16V M H7 or	CE1CMASSL100
	ELECTROLYTIC CAP. 10μF/16V M H7	526T106S
C 6032	CERAMIC CAP. B K 2200pH/50V or	CCD1JKS0B222
	CERAMIC CAP. B K 0.0022μF/50V	12B3222S
C 6033	CERAMIC CAP. B J 0.001μF/50V	3B41102T
C 6034	CERAMIC CAP. B J 0.001μF/50V	3B41102T
C 6035	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C 6036	CERAMIC CAP. F Z 0.047μF/50V	3F40473T
C 6037	CERAMIC CAP. B J 180pH/50V	3B41181T
C 7001	CERAMIC CAP. F Z 0.047μF/50V	3F40473T
C 7002	CERAMIC CAP. F Z 0.047μF/50V	3F40473T
C 7003	CERAMIC CAP. X K 0.0022μF/16V	3X4C222T
C 7005	CERAMIC CAP. B J 0.001μF/50V	3B41102T
C 7006	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C 7007	ELECTROLYTIC CAP. 100μF/16V M or	CE1CMASDL101
	ELECTROLYTIC CAP. 100μF/16V M	126C107S
C 7008	CERAMIC CAP. SL J 56pH/50V	3S41560T
C 7009	ELECTROLYTIC CAP. 47μF/35V M or	CE1GMASDL470
	ELECTROLYTIC CAP. 47μF/35V M	126E476S
C 7010	MYLAR CAP. 0.1μF/50V J or	CMA1JJS00104
	MYLAR CAP. 0.1μF/50V J	2254104S
C 7011	MYLAR CAP. 0.1μF/50V J or	CMA1JJS00104
	MYLAR CAP. 0.1μF/50V J	2254104S
C 7012	MYLAR CAP. 0.1μF/50V J or	CMA1JJS00104
	MYLAR CAP. 0.1μF/50V J	2254104S

Ref. No.	Description	Part No.
C 7013	CERAMIC CAP. X K 0.0022μF/16V	3X4C222T
C 7014	CERAMIC CAP. X K 0.0022μF/16V	3X4C222T
C 7015	CERAMIC CAP. X K 0.0068μF/16V	3X4C682T
C 7016	ELECTROLYTIC CAP. 470μF/6.3V M or	CE0KMAASDL471
	ELECTROLYTIC CAP. 470μF/6.3V M	126A477S
C 7017	CERAMIC CAP. F Z 0.1μF/50V	3F40104T
C 7018	CERAMIC CAP. X K 0.0022μF/16V	3X4C222T
C 7020	CERAMIC CAP. B J 0.001μF/50V	3B41102T
C 7021	CERAMIC CAP. F Z 0.1μF/50V	3F40104T
C 7022	CERAMIC CAP. X K 0.0022μF/16V	3X4C222T
C 7024	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C 7025	ELECTROLYTIC CAP. 4.7μF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7μF/50V M	126F475S
C 7501	CERAMIC CAP. F Z 0.01μF/50V or	CCD1JZS0F103
	CERAMIC CAP. F Z 0.01μF/50V	12F3103S
C 7502	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C 7503	CERAMIC CAP. X K 0.0033μF/16V	3X4C332T
C 7504	CERAMIC CAP. B J 470pH/50V	3B41471T
C 7505	CERAMIC CAP. B J 150pH/50V	3B41151T
<b>CONNECTORS</b>		
CN3001	STRAIGHT PIN CONNECTOR, 15P	1770635
CN6001	STRAIGHT PIN CONNECTOR, 20P	1770640
CN6002	HINGED PIN CONNECTOR 4P	J3TRJ04TG003
CN6005	STRAIGHT PIN HEADER, 2P	1740764
<b>DIODES</b>		
D 1001	RECTIFIER DIODE 1N4005 or	ND8Z001N4005
	RECTIFIER DIODE 1A5 or	NDQZ000001A5
	RECTIFIER DIODE 1N4005E	NDQZ01N4005E
D 1002	RECTIFIER DIODE 1N4005 or	ND8Z001N4005
	RECTIFIER DIODE 1A5 or	NDQZ000001A5
	RECTIFIER DIODE 1N4005E	NDQZ01N4005E
D 1003	RECTIFIER DIODE 1N4005 or	ND8Z001N4005
	RECTIFIER DIODE 1A5 or	NDQZ000001A5
	RECTIFIER DIODE 1N4005E	NDQZ01N4005E
D 1004	RECTIFIER DIODE 1N4005 or	ND8Z001N4005
	RECTIFIER DIODE 1A5 or	NDQZ000001A5
	RECTIFIER DIODE 1N4005E	NDQZ01N4005E
D 1005	RECTIFIER DIODE EG01C	QDPZ000EG01C
D 1006	SWITCHING DIODE 1N4148M or	NDT201N4148M
	SWITCHING DIODE 1N4148M or	QDT201N4148M
	SWITCHING DIODE GMB01-BT	GMB01BT
D 1007	SWITCHING DIODE 1N4148M or	NDT201N4148M
	SWITCHING DIODE 1N4148M or	QDT201N4148M
	SWITCHING DIODE GMB01-BT	GMB01BT
D 1009	RECTIFIER DIODE EG01C	QDPZ000EG01C
D 1010	RECTIFIER DIODE RU3YX LF-C4 or	QD7Z000RU3YX
	FAST RECOVERY DIODE EGP20B or	NDQB000EGP20
	FAST RECOVERY DIODE EGP20D	NDQD000EGP20
D 1011	RECTIFIER DIODE EG01C	QDPZ000EG01C
D 1012	SCHOTTKY BARRIER DIODE AK03 LF-01 or	QDQZ0000AK03
	SCHOTTKY BARRIER DIODE SB040 or	NDQZ000SB040
	SCHOTTKY BARRIER DIODE 11EQS04	QD4Z011EQS04
D 1013	SWITCHING DIODE BAV18 or	NDQZ000BAV18
	SWITCHING DIODE MA178	QDPZ000MA178

Ref. No.	Description	Part No.
D 1505	ZENER DIODE UZ-9.1BSC	QDTC0UZ9R1BS
D 1506	PCB JUMPER D0.6-P5.0	JW5.0T
D 1508	RECTIFIER DIODE 1N4005 or RECTIFIER DIODE 1A5 or RECTIFIER DIODE 1N4005E	ND8Z001N4005 NDQZ000001A5 NDQZ01N4005E
D 1509	PCB JUMPER D0.6-P5.0	JW5.0T
D 1510	PCB JUMPER D0.6-P5.0	JW5.0T
D 3002	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1N4148M or SWITCHING DIODE GMB01-BT	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 3003	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1N4148M or SWITCHING DIODE GMB01-BT	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 3006	SWITCHING DIODE GMB01-BT (V-8008SA(N) only) or SWITCHING DIODE 1N4148M (V-8008SA(N) only) or SWITCHING DIODE 1N4148M (V-8008SA(N) only)	GMB01BT NDTZ01N4148M QDTZ01N4148M
D 3007	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1N4148M or SWITCHING DIODE GMB01-BT	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 3101	SWITCHING DIODE 1N4148M (V-8008CM(N) only) or SWITCHING DIODE 1N4148M (V-8008CM(N) only) or SWITCHING DIODE GMB01-BT (V-8008CM(N) only)	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 3102	SWITCHING DIODE 1N4148M (V-8008CM(N) only) or SWITCHING DIODE 1N4148M (V-8008CM(N) only) or SWITCHING DIODE GMB01-BT (V-8008CM(N) only)	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 6001	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1N4148M or SWITCHING DIODE GMB01-BT	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 6004	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1N4148M or SWITCHING DIODE GMB01-BT	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 6005	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1N4148M or SWITCHING DIODE GMB01-BT	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 6006	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1N4148M or SWITCHING DIODE GMB01-BT	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 6007	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1N4148M or SWITCHING DIODE GMB01-BT	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 6008	LED SID1K10CXM or LED LN66A.FN or LED IR940 IR4 or LED IR940 IR5	QP4ZD1K10CXM QP7Z000LN66A NP43000IR940 NP44000IR940
D 6011	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1N4148M or SWITCHING DIODE GMB01-BT	NDTZ01N4148M QDTZ01N4148M GMB01BT
D 7001	ZENER DIODE UZ-6.2BSB	QDTB0UZ6R2BS
D 7002	ZENER DIODE UZ-6.2BSB	QDTB0UZ6R2BS
D 7003	ZENER DIODE UZ-6.2BSB	QDTB0UZ6R2BS
D 7501	ZENER DIODE UZ-5.1BS	QDTZ0UZ5R1BS
D 7502	ZENER DIODE UZ-5.1BS	QDTZ0UZ5R1BS
D 7503	ZENER DIODE UZ-5.1BS	QDTZ0UZ5R1BS
D 7504	ZENER DIODE UZ-5.1BS	QDTZ0UZ5R1BS
<b>ICS</b>		
IC1001	PHOTOCOUPLER PC120F	QPEZ00PC120F
IC1002	IC KA431Z or IC KIA431 or IC AN1431T-(NSC) or	NSZLA0ZSM001 NSZLA0ZJY001 QSBLA0ZMS001

Ref. No.	Description	Part No.
IC3001	IC L5431	QSZLA0ZSY004
IC3002	IC, VIDEO LA7347	QSZLA0SSY006
IC3101	IC LC89972M	QSMQA0SSY011
IC4001	IC LA7311 (V-8008CM(N) only)	14LQ528
IC6001	IC:AUDIO LA7286 MICROCONTROLLER 8BIT SY/CXP88224-101Q or MICROCONTROLLER 8BIT SY/CXP88224-103Q or MICROCONTROLLER 8BIT SY/CXP88224-104Q	QSZLA0SSY007 QSMQA0RSN027 QSMQB0RSN027 QSMQC0RSN027
IC6002	IC, COMPARATOR KA339 or IC, COMPARATOR KIA339P	NSBLA0SSM002 NSBLA0SJY019
IC6003	IC, OP-AMP. KA324 or IC:OP-AMP. KIA324P DIP-14	NSBLA0SSM001 NSBLA0SJY002
IC6004	IC TA7291S	14LW342
IC6005	IC, RESET 4.2V KIA7042P(TO-92) or IC:RESET PST-529D-2	NSBLA0TJY016 14DM763Z
IC6008	IC:MEMORY 24LC01B/P or IC ST24C01B1 or IC X24C01AP	NSMMA0SMH002 NSMMA0ZSS002 NSMMA0SXC002
IC7001	ZENER DIODE UZT33MTA	QCTZ00UZT33M
IC7501	IC NJU4052BD or IC UPD4052BC or IC TC4052BP or IC HEF4052BP	14D0438 QSMQA0SNE004 QSMQA0STS003 NSMLA0SPH001
<b>COILS</b>		
L 1002	LINE FILTER 68MH LF-4D-683 or LINE FILTER 68MH ELF-18D222FN	LLBG00ZKQ002 LLBG00ZMS006
L 1003	LEAD INDUCTOR 22μH-K	LLARKLUTU220
L 1004	LEAD INDUCTOR 10μH-K	LLARKLUTU100
L 1005	BEAD CORE HF70BB3.5X10X1.3	XL03010TE001
L 1006	BEAD CORE HF70BB3.5X10X1.3	XL03010TE001
L 1007	BEAD CORE HF70BB3.5X10X1.3	XL03010TE001
L 1008	BEAD CORE HF70BB3.5X10X1.3	XL03010TE001
L 3001	INDUCTOR 180μH-K-26T or INDUCTOR 180μH-K-26T or INDUCTOR 180μH-K	LLAXKDTKA181 LLAXKATTU181 LLAXKCPFG181
L 3002	INDUCTOR 82μH-K-26T or INDUCTOR 82μH-K-26T or INDUCTOR 82μH-K	LLAXKDTKA820 LLAXKATTU820 LLAXKCPFG820
L 3003	INDUCTOR 330μH-K-26T or INDUCTOR 330μH-K	LLAXKDTKA331 LLAXKCPFG331
L 3004	INDUCTOR 56μH-K-26T or INDUCTOR 56μH-K-26T or INDUCTOR 56μH-K	LLAXKDTKA560 LLAXKATTU560 LLAXKCPFG560
L 3005	INDUCTOR 27μH-K-26T or INDUCTOR 27μH-K-26T or INDUCTOR 27μH-K	LLAXKDTKA270 LLAXKATTU270 LLAXKCPFG270
L 3006	INDUCTOR 10μH-K-26T or INDUCTOR 10μH-K-26T or INDUCTOR 10μH-K	LLAXKDTKA100 LLAXKATTU100 LLAXKCPFG100
L 3007	INDUCTOR 330μH-K-26T or INDUCTOR 330μH-K	LLAXKDTKA331 LLAXKCPFG331
L 3008	INDUCTOR 27μH-K-26T or INDUCTOR 27μH-K-26T or INDUCTOR 27μH-K	LLAXKDTKA270 LLAXKATTU270 LLAXKCPFG270
L 3009	INDUCTOR 68μH-K-26T or INDUCTOR 68μH-K-26T or INDUCTOR 68μH-K	LLAXKDTKA680 LLAXKATTU680 LLAXKCPFG680
L 3010	INDUCTOR 68μH-K-26T or INDUCTOR 68μH-K-26T or INDUCTOR 68μH-K	LLAXKDTKA680 LLAXKATTU680 LLAXKCPFG680
L 3012	INDUCTOR 47μH-K-5FT or INDUCTOR 47μH-K-5FT or INDUCTOR 47μH-K-5FT	LLARKDSKA470 LLARKBSTU470 LLARKBSFS470
L 3013	INDUCTOR 18μH-K-26T or	LLAXKDTKA180

Ref. No.	Description	Part No.
L 3014	INDUCTOR 18μH-K-26T or INDUCTOR 18μH-K	LLAXKATTU180 LLAXKCPFG180
L 3090	LEAD INDUCTOR 22μH-K	LLARKLUTU220
L 3091	PCB JUMPER D0.6-P5.0 INDUCTOR 10μH-K-26T or INDUCTOR 10μH-K-26T or INDUCTOR 10μH-K	JW5.0T LLAXKDTKA100 LLAXKATTU100 LLAXKCPFG100
L 6002	INDUCTOR 100μH-K-5FT or INDUCTOR 100μH-K-5FT or INDUCTOR 100μH-K-5FT	LLARKDSKA101 LLARKCSTU101 LLARKBSFS101
L 7001	INDUCTOR 100μH-K-5FT or INDUCTOR 100μH-K-5FT or INDUCTOR 100μH-K-5FT	LLARKDSKA101 LLARKCSTU101 LLARKBSFS101
L 7002	INDUCTOR 100μH-K-5FT or INDUCTOR 100μH-K-5FT or INDUCTOR 100μH-K-5FT	LLARKDSKA101 LLARKCSTU101 LLARKBSFS101
<b>TRANSISTORS</b>		
Q 1001	TRANSISTOR 2SC4204 or TRANSISTOR 2SC3576	QQSZ02SC4204 QQSZ02SC3576
Q 1002	TRANSISTOR 2SC4517 or TRANSISTOR 2SC3866	QQPZ02SC4517 QQPZ02SC3866
Q 1003	TRANSISTOR 2SC3331(T)	QSC3331TNPAA
Q 1501	TRANSISTOR KTC3199(GR) or TRANSISTOR KSC2785(Y) or TRANSISTOR 2SC536SP(E) or TRANSISTOR 2SC536SP(F)	NQS10KTC3199 NQS10KSC2785 C536SEZ C536SFZ
Q 1502	TRANSISTOR 2SD1581(K) or TRANSISTOR 2SD1581(L) or TRANSISTOR 2SD1581(M) or TRANSISTOR 2SC3246(J) or TRANSISTOR 2SC3246(K)	QKPK02SD1581 QQPL02SD1581 QQPM02SD1581 QQQJ02SC3246 QQQK02SC3246
Q 1503	RES. BUILT-IN TRANSISTOR KSR2205 or RES. BUILT-IN TRANSISTOR 2SA1654	NQSZ0KSR2205 QQSZ02SA1654
Q 1506	TRANSISTOR KTA1266(GR) or TRANSISTOR 2SA1317(S) or TRANSISTOR 2SA1317(T)	NQS40KTA1266 A1317SZ A1317TZ
Q 1507	RES. BUILT-IN TRANSISTOR KRC103M or RES. BUILT-IN TRANSISTOR KSR1203 or RES. BUILT-IN TRANSISTOR 2SC3400	NQSZ0KRC103M NQSZ0KSR1203 C3400Z
Q 3001	TRANSISTOR KTC3199(GR) or TRANSISTOR KSC2785(Y) or TRANSISTOR 2SC536SP(E) or TRANSISTOR 2SC536SP(F)	NQS10KTC3199 NQS10KSC2785 C536SEZ C536SFZ
Q 3003	TRANSISTOR 2SC3193(Y) or TRANSISTOR 2SC2839(E) or TRANSISTOR 2SC2839(F)	NQSY02SC3193 C2839EZ C2839FZ
Q 3004	TRANSISTOR 2SC3193(Y) or TRANSISTOR 2SC2839(E) or TRANSISTOR 2SC2839(F)	NQSY02SC3193 C2839EZ C2839FZ
Q 3007	TRANSISTOR KTA1267(GR) or TRANSISTOR KSA1175(Y) or TRANSISTOR 2SA608SP(E) or TRANSISTOR 2SA608SP(F)	NQS10KTA1267 NQSY0KSA1175 A608SEZ A608SFZ
Q 3009	TRANSISTOR KTA1267(GR) or TRANSISTOR KSA1175(Y) or TRANSISTOR 2SA608SP(E) or TRANSISTOR 2SA608SP(F)	NQS10KTA1267 NQSY0KSA1175 A608SEZ A608SFZ
Q 3010	TRANSISTOR KTA1267(GR) or TRANSISTOR KSA1175(Y) or TRANSISTOR 2SA608SP(E) or TRANSISTOR 2SA608SP(F)	NQS10KTA1267 NQSY0KSA1175 A608SEZ A608SFZ
Q 3011	RES. BUILT-IN TRANSISTOR KRA109M (V-8008SA(N) only) or RES. BUILT-IN TRANSISTOR KSR2208 (V-8008SA(N) only) or RES. BUILT-IN TRANSISTOR 2SA1347 (V-8008SA(N) only)	NQSZ0KRA109M NQSZ0KSR2208 QQSZ02SA1347

Ref. No.	Description	Part No.
Q 3012	RES. BUILT-IN TRANSISTOR KRC103M or RES. BUILT-IN TRANSISTOR KSR1203 or RES. BUILT-IN TRANSISTOR 2SC3400	NQSZ0KRC103M NQSZ0KSR1203 C3400Z
Q 3013	TRANSISTOR 2SC3193(Y) or TRANSISTOR 2SC2839(E) or TRANSISTOR 2SC2839(F)	NQSY02SC3193 C2839EZ C2839FZ
Q 3090	TRANSISTOR KTA1266(GR) or TRANSISTOR 2SA1317(S) or TRANSISTOR 2SA1317(T)	NQS40KTA1266 A1317SZ A1317TZ
Q 4001	TRANSISTOR 2SC3331(T)	QSC3331TNPAA
Q 4002	TRANSISTOR KTA1267(GR) or TRANSISTOR KSA1175(Y) or TRANSISTOR 2SA608SP(E) or TRANSISTOR 2SA608SP(F)	NQS10KTA1267 NQSY0KSA1175 A608SEZ A608SFZ
Q 4003	TRANSISTOR KTC3199(GR) or TRANSISTOR KSC2785(Y) or TRANSISTOR 2SC536SP(E) or TRANSISTOR 2SC536SP(F)	NQS10KTC3199 NQS10KSC2785 C536SEZ C536SFZ
Q 4004	RES. BUILT-IN TRANSISTOR KRC103M or RES. BUILT-IN TRANSISTOR KSR1203 or RES. BUILT-IN TRANSISTOR 2SC3400	NQSZ0KRC103M NQSZ0KSR1203 C3400Z
Q 6002	TRANSISTOR KTA1267(GR) or TRANSISTOR KSA1175(Y) or TRANSISTOR 2SA608SP(E) or TRANSISTOR 2SA608SP(F)	NQS10KTA1267 NQSY0KSA1175 A608SEZ A608SFZ
Q 6006	TRANSISTOR KTC3199(GR) or TRANSISTOR KSC2785(Y) or TRANSISTOR 2SC536SP(E) or TRANSISTOR 2SC536SP(F)	NQS10KTC3199 NQS10KSC2785 C536SEZ C536SFZ
Q 6007	PHOTO TRANSISTOR PT380FB	QP4B00PT380F
Q 6008	PHOTO TRANSISTOR PT380FB	QP4B00PT380F
Q 7001	TRANSISTOR KTC3199(GR) or TRANSISTOR KSC2785(Y) or TRANSISTOR 2SC536SP(E) or TRANSISTOR 2SC536SP(F)	NQS10KTC3199 NQS10KSC2785 C536SEZ C536SFZ
Q 7002	RES. BUILT-IN TRANSISTOR KSR2205 or RES. BUILT-IN TRANSISTOR 2SA1654	NQSZ0KSR2205 QQSZ02SA1654
Q 7003	RES. BUILT-IN TRANSISTOR KSR2205 or RES. BUILT-IN TRANSISTOR 2SA1654	NQSZ0KSR2205 QQSZ02SA1654
Q 7004	RES. BUILT-IN TRANSISTOR KSR2205 or RES. BUILT-IN TRANSISTOR 2SA1654	NQSZ0KSR2205 QQSZ02SA1654
Q 7007	TRANSISTOR KTC3199(GR) or TRANSISTOR KSC2785(Y) or TRANSISTOR 2SC536SP(E) or TRANSISTOR 2SC536SP(F)	NQS10KTC3199 NQS10KSC2785 C536SEZ C536SFZ
<b>RESISTORS</b>		
R 1001	FIXED METAL OXIDE FILM RES. 2W J 4.7 Ω	RN024R7KE005
R 1002	FIXED METAL OXIDE FILM RES. 2W J 82K Ω or FIXED METAL OXIDE FILM RES. 2W J 82K Ω	RN02JZP0823 1330513
R 1004	CARBON RES. 1/4W J 56K Ω	RCX4JATZ0563
R 1005	CARBON RES. 1/4W J 56K Ω	RCX4JATZ0563
R 1006	CARBON RES. 1/4W J 56K Ω	RCX4JATZ0563
R 1007	CARBON RES. 1/4W J 56K Ω	RCX4JATZ0563
R 1008	CARBON RES. 1/4W J 39 Ω	RCX4JATZ0390
R 1009	CARBON RES. 1/4W J 39 Ω	RCX4JATZ0390
R 1010	CARBON RES. 1/4W J 39 Ω	RCX4JATZ0390
R 1011	CARBON RES. 1/4W J 3.9K Ω	RCX4JATZ0392
R 1012	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R 1013	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 1014	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 1015	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 1016	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 1017	CARBON RES. 1/4W J 2.7K Ω	RCX4JATZ0272
R 1018	CARBON RES. 1/4W J 2.2 Ω	RCX4JATZ02R2
R 1019	CARBON RES. 1/4W J 2.2 Ω	RCX4JATZ02R2

Ref. No.	Description	Part No.
R 1020	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R 1021	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 1022	CARBON RES. 1/4W J 47 Ω	RCX4JATZ0470
R 1023	CARBON RES. 1/4W G 3K Ω	RCX4GATZ0302
R 1024	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R 1025	CARBON RES. 1/4W G 2.2K Ω	RCX4GATZ0222
R 1026	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R 1027	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R 1028	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 1029	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 1501	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 1502	CARBON RES. 1/4W J 15K Ω	RCX4JATZ0153
R 1504	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 1505	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 1506	PCB JUMPER D0.6-P5.0	JW5.0T
R 1512	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 1514	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 1515	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 3001	CARBON RES. 1/4W J 1.5K Ω	RCX4JATZ0152
R 3002	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 3003	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R 3004	CARBON RES. 1/4W J 3.9K Ω	RCX4JATZ0392
R 3005	CARBON RES. 1/4W J 1.5K Ω	RCX4JATZ0152
R 3006	CARBON RES. 1/4W J 3.9K Ω	RCX4JATZ0392
R 3007	CARBON RES. 1/4W J 1.2K Ω (V-8008CM(N) only)	RCX4JATZ0122
R 3007	CARBON RES. 1/4W J 1.2K Ω (V-8008SA(N) only)	RCX4JATZ0152
R 3008	CARBON RES. 1/4W J 5.6K Ω	RCX4JATZ0562
R 3009	CARBON RES. 1/4W J 8.2K Ω	RCX4JATZ0822
R 3010	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 3011	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 3012	CARBON RES. 1/4W J 3.9K Ω	RCX4JATZ0392
R 3013	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R 3014	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 3016	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 3017	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R 3018	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R 3019	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 3020	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R 3021	CARBON RES. 1/4W J 820 Ω (V-8008CM(N) only)	RCX4JATZ0821
R 3022	CARBON RES. 1/4W J 330 Ω	RCX4JATZ0331
R 3024	CARBON RES. 1/4W J 27K Ω	RCX4JATZ0273
R 3025	CARBON RES. 1/4W J 8.2K Ω	RCX4JATZ0822
R 3026	CARBON RES. 1/4W J 5.6K Ω	RCX4JATZ0562
R 3027	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R 3028	CARBON RES. 1/4W J 2.7K Ω	RCX4JATZ0272
R 3029	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 3030	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R 3031	CARBON RES. 1/4W J 2.7K Ω	RCX4JATZ0272
R 3032	CARBON RES. 1/4W J 10K Ω (V-8008CM(N) only)	RCX4JATZ0103
R 3032	CARBON RES. 1/4W J 15K Ω (V-8008SA(N) only)	RCX4JATZ0153
R 3033	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R 3034	PCB JUMPER D0.6-P5.0 (V-8008CM(N) only)	JW5.0T
R 3034	CARBON RES. 1/4W J 100 Ω (V-8008SA(N) only)	RCX4JATZ0101
R 3035	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R 3036	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 3037	CARBON RES. 1/4W J 22K Ω (V-8008SA(N) only)	RCX4JATZ0223
R 3038	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 3039	CARBON RES. 1/4W J 1.8K Ω	RCX4JATZ0182
R 3040	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R 3041	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R 3042	CARBON RES. 1/4W J 2.7K Ω	RCX4JATZ0272

Ref. No.	Description	Part No.
R 3043	CARBON RES. 1/4W J 2.7K Ω	RCX4JATZ0272
R 3044	CARBON RES. 1/4W J 2.7K Ω	RCX4JATZ0272
R 3045	CARBON RES. 1/4W J 560 Ω	RCX4JATZ0561
R 3046	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R 3047	CARBON RES. 1/4W J 1.8K Ω	RCX4JATZ0182
R 3053	CARBON RES. 1/4W J 1M Ω	RCX4JATZ0105
R 3054	CARBON RES. 1/4W J 8.2K Ω	RCX4JATZ0822
R 3056	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 3057	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R 3058	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 3059	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 3060	CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271
R 3061	CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271
R 3062	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 3063	CARBON RES. 1/4W J 82K Ω	RCX4JATZ0823
R 3064	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 3066	CARBON RES. 1/4W J 5.6K Ω	RCX4JATZ0562
R 3067	CARBON RES. 1/4W J 2.7K Ω	RCX4JATZ0272
R 3068	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 3090	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R 3091	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R 3092	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R 3101	CARBON RES. 1/4W J 4.3K Ω (V-8008CM(N) only)	RCX4JATZ0432
R 3102	CARBON RES. 1/4W J 1.5K Ω (V-8008CM(N) only)	RCX4JATZ0152
R 3103	CARBON RES. 1/4W J 1M Ω (V-8008CM(N) only)	RCX4JATZ0105
R 3104	CARBON RES. 1/4W J 1M Ω (V-8008CM(N) only)	RCX4JATZ0105
R 3105	CARBON RES. 1/4W J 22K Ω (V-8008CM(N) only)	RCX4JATZ0223
R 3106	CARBON RES. 1/4W J 820 Ω (V-8008CM(N) only)	RCX4JATZ0821
R 3107	CARBON RES. 1/4W J 2.7K Ω (V-8008CM(N) only)	RCX4JATZ0272
R 3108	CARBON RES. 1/4W J 2.2K Ω (V-8008CM(N) only)	RCX4JATZ0222
R 4002	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 4003	CARBON RES. 1/4W J 330K Ω	RCX4JATZ0334
R 4004	CARBON RES. 1/4W J 12K Ω	RCX4JATZ0123
R 4005	CARBON RES. 1/4W J 120 Ω	RCX4JATZ0121
R 4006	CARBON RES. 1/4W J 5.6K Ω	RCX4JATZ0562
R 4007	CARBON RES. 1/4W J 1.8M Ω	RCX4JATZ0185
R 4008	CARBON RES. 1/4W J 15K Ω	RCX4JATZ0153
R 4009	CARBON RES. 1/4W J 6.8K Ω	RCX4JATZ0682
R 4010	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R 4011	CARBON RES. 1/4W J 1.8K Ω	RCX4JATZ0182
R 4012	CARBON RES. 1/4W J 1.8K Ω	RCX4JATZ0182
R 4013	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 4014	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 4018	CARBON RES. 1/4W J 22 Ω	RCX4JATZ0220
R 4019	CARBON RES. 1/4W J 47 Ω	RCX4JATZ0470
R 4020	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 4021	CARBON RES. 1/4W J 4.7 Ω	RCX4JATZ047R
R 4022	CARBON RES. 1/4W J 3.9K Ω	RCX4JATZ0392
R 4023	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 4024	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R 4025	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 4027	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 6001	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 6003	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6004	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6006	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 6007	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 6009	PCB JUMPER D0.6-P5.0	JW5.0T
R 6011	CARBON RES. 1/4W J 1 Ω	RCX4JATZ0010
R 6012	CARBON RES. 1/4W J 1 Ω	RCX4JATZ0010

Ref. No.	Description	Part No.
R 6013	CARBON RES. 1/4W J 1 Ω	RCX4JATZ0010
R 6014	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6015	CARBON RES. 1/4W J 1.5K Ω	RCX4JATZ0152
R 6016	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R 6017	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 6018	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6019	CARBON RES. 1/4W J 12K Ω	RCX4JATZ0123
R 6024	CARBON RES. 1/4W J 6.2 Ω	RCX4JATZ06R2
R 6025	CARBON RES. 1/4W J 6.2 Ω	RCX4JATZ06R2
R 6026	CARBON RES. 1/4W J 1.8K Ω	RCX4JATZ0182
R 6027	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 6028	CARBON RES. 1/4W J 1.2K Ω	RCX4JATZ0122
R 6029	CARBON RES. 1/4W J 1.5K Ω	RCX4JATZ0152
R 6030	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 6031	CARBON RES. 1/4W J 3.9K Ω	RCX4JATZ0392
R 6032	CARBON RES. 1/4W J 8.2K Ω	RCX4JATZ0822
R 6035	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 6036	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 6037	CARBON RES. 1/4W J 39K Ω	RCX4JATZ0393
R 6038	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 6039	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6041	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 6042	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6043	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6044	CARBON RES. 1/4W J 330K Ω	RCX4JATZ0334
R 6045	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 6046	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 6047	CARBON RES. 1/4W J 4.7M Ω	RCX4JATZ0475
R 6050	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R 6051	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 6052	CARBON RES. 1/4W J 330K Ω	RCX4JATZ0334
R 6053	PCB JUMPER D0.6-P5.0	JW5.0T
R 6054	CARBON RES. 1/4W J 180K Ω	RCX4JATZ0184
R 6055	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6056	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6057	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6058	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 6059	CARBON RES. 1/4W J 220K Ω	RCX4JATZ0224
R 6060	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 6062	CARBON RES. 1/4W J 6.8K Ω	RCX4JATZ0682
R 6063	CARBON RES. 1/4W J 2.7K Ω	RCX4JATZ0272
R 6064	CARBON RES. 1/4W J 680K Ω	RCX4JATZ0684
R 6065	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R 6066	CARBON RES. 1/4W J 470K Ω	RCX4JATZ0474
R 6067	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 6068	CARBON RES. 1/4W J 330K Ω	RCX4JATZ0334
R 6069	CARBON RES. 1/4W J 56 Ω	RCX4JATZ0560
R 6070	CARBON RES. 1/4W J 56 Ω	RCX4JATZ0560
R 6071	CARBON RES. 1/4W J 56 Ω	RCX4JATZ0560
R 6072	CARBON RES. 1/4W J 56 Ω	RCX4JATZ0560
R 6075	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6076	CARBON RES. 1/4W J 82K Ω	RCX4JATZ0823
R 6077	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 6078	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 6079	CARBON RES. 1/4W J 680K Ω	RCX4JATZ0684
R 6080	CARBON RES. 1/4W J 680K Ω	RCX4JATZ0684
R 6083	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 6084	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R 6085	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 6086	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 6087	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 6088	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 6102	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6104	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6105	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 6108	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103

Ref. No.	Description	Part No.
R 6112	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6113	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6115	CARBON RES. 1/4W J 10K Ω (V-8008SA(N) only)	RCX4JATZ0103
R 6116	CARBON RES. 1/4W J 10K Ω (V-8008CM(N) only)	RCX4JATZ0103
R 6118	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 6119	CARBON RES. 1/4W J 10K Ω (V-8008CM(N) only)	RCX4JATZ0103
R 6120	CARBON RES. 1/4W J 10K Ω (V-8008SA(N) only)	RCX4JATZ0103
R 6121	CARBON RES. 1/4W J 10K Ω (V-8008SA(N) only)	RCX4JATZ0103
R 6122	CARBON RES. 1/4W J 10K Ω (V-8008CM(N) only)	RCX4JATZ0103
R 6123	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6133	CARBON RES. 1/4W J 18K Ω	RCX4JATZ0183
R 6134	CARBON RES. 1/4W J 18K Ω	RCX4JATZ0183
R 6136	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6137	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6140	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6141	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 6142	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 6143	CARBON RES. 1/4W J 4.7K Ω	RCX4JATZ0472
R 7001	CARBON RES. 1/4W J 47K Ω	RCX4JATZ0473
R 7002	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 7003	CARBON RES. 1/4W J 33K Ω	RCX4JATZ0333
R 7004	CARBON RES. 1/4W J 1.5K Ω	RCX4JATZ0152
R 7005	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 7006	CARBON RES. 1/4W J 15K Ω	RCX4JATZ0153
R 7007	CARBON RES. 1/4W J 27K Ω	RCX4JATZ0273
R 7008	CARBON RES. 1/4W J 27K Ω	RCX4JATZ0273
R 7009	CARBON RES. 1/4W J 39K Ω	RCX4JATZ0393
R 7010	CARBON RES. 1/4W J 15K Ω	RCX4JATZ0153
R 7011	CARBON RES. 1/4W J 560K Ω	RCX4JATZ0564
R 7012	CARBON RES. 1/4W J 560K Ω	RCX4JATZ0564
R 7013	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R 7016	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 7017	CARBON RES. 1/4W J 100K Ω	RCX4JATZ0104
R 7021	CARBON RES. 1/4W J 330K Ω	RCX4JZP0334
R 7022	CARBON RES. 1/4W J 330K Ω	RCX4JATZ0334
R 7501	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 7502	CARBON RES. 1/4W J 100K Ω	RCX4JATZ0104
R 7503	CARBON RES. 1/4W J 10K Ω	RCX4JATZ0103
R 7504	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R 7505	CARBON RES. 1/4W J 68 Ω	RCX4JATZ0680
R 7506	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R 7507	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R 7509	CARBON RES. 1/4W J 22K Ω	RCX4JATZ0223
R 7510	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
SWITCHES		
SW6002	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001
	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028
SW6004	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001
	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028
SW6005	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001

Ref. No.	Description	Part No.
SW6006	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028
	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
SW6007	TACT SWITCH KPT-1105BM or	SST0101JP001
	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028
	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
SW6008	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001
	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028
	TACT SWITCH TS-1230BM or	SST0101VK002
SW6009	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001
	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028
SW6012	PUSH SWITCH SPPB61 or	SSP0102AL001
	PUSH SWITCH JPS1120-0601H	SSP0102SR001
VARIABLE RESISTORS		
VR3001	CARBON P.O.T. 4.7K Ω B or	638A472
VR3002	CARBON P.O.T. 5K Ω B or	VRCB502HH005
	CARBON P.O.T. 5K Ω B	138J780
	CARBON P.O.T. 4.7K Ω B or	638A472
VR3003	CARBON P.O.T. 5K Ω B or	VRCB502HH005
	CARBON P.O.T. 5K Ω B	138J780
	CARBON P.O.T. 4.7K Ω B or	638A472
VR6001	CARBON P.O.T. 5K Ω B or	VRCB502HH005
	CARBON P.O.T. 5K Ω B	138J780
	CARBON P.O.T. 100K Ω B or	638A104
	CARBON P.O.T. 100K Ω B or	VRCB104HH005
	CARBON P.O.T. 100K Ω B	138J785
CRYSTAL OSCILLATORS		
X 3001	X'TAL 4.433619MHZ or	1811388
	X'TAL 4.433619MHZ or	1811366
	X'TAL 4.433619MHZ	FXC445LGM001
X 6001	X'TAL 12MHZ or	FXE126LFS001
	X'TAL 12MHZ or	FXE126LCU002
	X'TAL 12MHZ or	FXE126LDS011
	X'TAL 12MHZ	FXE126LGM001
X 6002	X'TAL 32KHZ(10PPM)	1811350
MISCELLANEOUS		
	WIRE TIE PLT.7M	1790571
	LEAD CLAMPER or	1790356
	LEAD CLAMPER GT-80M	XF00080HL001
2B 4	HOLDER, F.I.P.(L)	0VM301820
2B 5	HOLDER, F.I.P.(R)	0VM301821
2B 8	BUSH, LED	6N50114
2B 9	HOLDER, L.E.D.	0VM405711
2B 10	HEATSINK	0VM406060
2L 034	SCREW, A-TIGHT M3X10 BIND HEAD+	DBM13100
2L 071	SCREW, S-TIGHT M3X5 BIND HEAD+	GBMS3050
2L 081	SCREW, P-TIGHT 3X10 BIND HEAD+	GBKP3100
A 17	JACK BOARD U9-PAL-RCA(BG/DK)	0VM201605
AC1001 ⚠	AC CORD LA-1296-2 or	WAE0202LW006
	AC CORD EP-631-E01 or	WAE0202NW008
	AC CORD	WAE0202BX001

Ref. No.	Description	Part No.
F 1001 ⚠	FUSE T1.60AH250V or	PAGC20BAG162
FH1001	FUSE T1.60AH250V	PBGZ20CDX006
	FUSE HOLDER FH-V-03078-1 or	XH01Z00DK002
FH1002	HOLDER, FUSE CNT41-0014	1790424
	FUSE HOLDER FH-V-03078-1 or	XH01Z00DK002
FP6001	HOLDER, FUSE CNT41-0014	1790424
	F.I.P. 10-BT-121G	TVFD1C0FT025
PS6001	REEL SENSOR GP1S38 or	PCZLAZZSH001
	REEL SENSOR SG-224	PCZLAZZKK004
SN6001	DEW SENSOR EYHS-10R4	PCZHUMZMS004
T 1001 ⚠	PULSE TRANS S1026F A0576	LTT00ZPSA009
T 4001	COIL, OSC 7QM3 C-14284A or	LFA07V0VD001
	COIL, OSC K7-J1 R12 N657X	LFA07V0MM038
TU7001	TUNER/IF/CONV. UNIT EC-RB-0164	UTUNPSDNE002
TU7001	(V-8008CM(N) only)	
	TUNER/IF/CONV. UNIT EC-RB-0165	UTUNPSLNE002
W 01	(V-8008SA(N) only)	
	WIRE	WX3801A84404

REMOTE SENSOR CBA (MCV-C)

Ref. No.	Description	Part No.
	REMOTE SENSOR (MCV-C) CBA	_____
	Consists of the following:	
RS6001	REMOTE CONTROL UNIT NJH32H367A	USESJRSJR004

REMOTE SENSOR CBA (MCV-D)

Ref. No.	Description	Part No.
	REMOTE SENSOR (MCV-D) CBA	_____
	Consists of the following:	
RS6001	REMOTE CONTROL UNIT HC-278N or	USESJRSKK008
	REMOTE CONTROL UNIT GP1U582X	USESJRSSH009

FUNCTION CBA (FNT)

Ref. No.	Description	Part No.
	FUNCTION (FNT) CBA	0VSA06693
	Consists of the following:	
CONNECTOR		
CN5501	HINGED SOCKET CONNECTOR 4P	JCTRG04TG002
RESISTORS		
R 5502	CARBON RES. 1/4W J 8.2K Ω	RCX4JATZ0822
R 5503	CARBON RES. 1/4W J 3.9K Ω	RCX4JATZ0392
R 5504	CARBON RES. 1/4W J 2.2K Ω	RCX4JATZ0222
R 5505	CARBON RES. 1/4W J 1.5K Ω	RCX4JATZ0152
R 5506	CARBON RES. 1/4W J 1.2K Ω	RCX4JATZ0122
R 5507	CARBON RES. 1/4W J 1K Ω	RCX4JATZ0102
R 5508	CARBON RES. 1/4W J 1.8K Ω	RCX4JATZ0182
SWITCHES		
SW5502	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001
	TACT SWITCH EVQ PAC 09K or	SST0101MS017
SW5503	TACT SWITCH SKHHAP	SST0101AL028
	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001
SW5504	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028
	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001
	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028

SW5505	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001
	TACT SWITCH EVQ PAC 09K or	SST0101MS017
SW5506	TACT SWITCH SKHHAP	SST0101AL028
	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001
SW5507	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028
	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
SW5508	TACT SWITCH KPT-1105BM or	SST0101JP001
	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028
	TACT SWITCH TS-1230BM or	SST0101VK002
	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH DHT-1102C or	SST0101LJ001
	TACT SWITCH KPT-1105BM or	SST0101JP001
	TACT SWITCH EVQ PAC 09K or	SST0101MS017
	TACT SWITCH SKHHAP	SST0101AL028

JACK CBA

Ref. No.	Description	Part No.
	JACK CBA	0VSA06695
	Consists of the following:	
JK7502	RCA JACK YKB11-0265	JXRJ030JC001
JK7503	RCA JACK YKB11-0265	JXRJ030JC001
JK7504	RCA JACK(YELLOW) YKB11-0266	JXRJ030JC002
JK7505	RCA JACK(YELLOW) YKB11-0266	JXRJ030JC002
2B 11	HOLDER, JACK P.C.B.	0VM301831
CN7501	PIN HEADER, ANGLE, 6P	5700331

DECK MECHANICAL PARTS LIST

Ref. No.	Description	Parts No.
B 1	CHASSIS ASSEMBLY	0VSA05627
B 2	SYLINDER ASSEMBLY (V-8008SA(N) only)or	0VM301885
	SYLINDER ASSEMBLY	0VM201486
B 2	SYLINDER ASSEMBLY (V-8008CM(N) only)or	0VM301796
	SYLINDER ASSEMBLY	0VM201335
B 3	LOADING MOTOR PREPARATION	0VSA04781
B 4	MOTOR HOLDER CALKING ASSEMBLY	0VM403364
B 5	CASSETTE DRIVE LEVER ASSEMBLY	0VM403507I
B 6	PINCH ROLLER ARM ASSEMBLY	0VSA05848
B 7	PINCH ARM ASSEMBLY or	0VM402387
	PINCH ARM ASSEMBLY	0VSA05924
B 8	PULLEY ASSEMBLY	0VSA05505
B 9	MOVING GUIDE S ASSEMBLY	0VSA05722
B 10	MOVING GUIDE T ASSEMBLY	0VSA05723
B 11	LOADING ARM T ASSEMBLY	0VSA05503
B 12	LOADING ARM B ASSEMBLY	0VSA04215
B 13	LOADING ARM M ASSEMBLY	0VM404693
B 14	PINCH ROLLER SP	0VM403949B
B 15	LUMIRROR WASHER 3.1X6X0.35	0VM403269
B 16	CAM	0VM100453
B 21	LOADING BELT or	0VM403432
	LOADING BELT	0VM403952
B 22	P.S.W(CUT)	0VM404679
B 27	BAND BRAKE ASSEMBLY	0VSA04658
B 28	MAIN BRAKE S ASSEMBLY	0VSA04212
B 29	MAIN BRAKE T ASSEMBLY	0VSA04213
B 30	T BRAKE ARM ASSEMBLY	0VSA04641
B 31	AC HEAD ASSEMBLY	0VSA04756
B 32	REEL BASE ASSEMBLY	0VSA04759
B 34	MAIN LEVER ASSEMBLY	0VM402558
B 35	TAPE GUIDE ASSEMBLY	0VM402560
B 36	TENSION LEVER SP ASSEMBLY	0VSA04550
B 37	CAPSTAN MOTOR F2QKB92	MMDDDB5ZSJ002
B 38	MODE CHANGE LEVER	0VM201234G
B 39	M BRAKE(S)SPRING	0VM402579
B 40	M BRAKE(S)LEVER	0VM300753
B 41	S BRAKE ARM	0VM301759
B 42	M BRAKE T ARM SPRING	0VM402582
B 43	T BRAKE SPRING	0VM402580
B 44	HEAD ADJUST SPRING	0VM402567A
B 45	M LEVER SPRING	0VM402570
B 46	TAPE GUIDE ARM SPRING	0VM402581
B 47	TAPE GUIDE ARM ADJUST SCREW	0VM403242
B 48	ADJUST NUT (B)	0VM404678A
B 49	BT DRIVE ARM	0VM300756K
B 51	CHANGE ARM or	0VM402441E
	CHANGE ARM A	0VM405857
B 52	BELT FWD or	0VM402397
	BELT FWD	0VM403950
B 53	P.S.W B	0VM402625
B 54	GROUND BRUSH ASSEMBLY or	0VM404524
	GROUND BRUSH ASSEMBLY or	0VM404534
	GROUND BRUSH ASSEMBLY	0VM404827
B 73	FE HEAD HVFHF0002A or	DHVEC01AL001
	FE HEAD VTR-1X2ERS11-109 or	DHVEC01TE001
	FE HEAD MH-131S/KM131400	DHVEC01LA001
B 74	LUMINESCENCE PRISM(B)	0VM301764F
B 76	REC ARM SPRING	0VM402578
B 80	SPRING FOR PRESSING PACK or	0VM405684
	SPRING FOR PRESSING PACK	0VM403674
B 81	M LEVER HOLDER	0VM301717
B 83	RACK SPRING	0VM403894

Ref. No.	Description	Parts No.
B 98	T,G CAP (2)	0VM404937
B 103	REC ARM A	0VM301441H
B 104	REC ARM B	0VM301442G
B 105	REC SPRING	0VM403724
B 108	P.S.W F	0VM402629
B 121	WORM	0VM402429
B 122	P.S.W C	0VM402626
B 123	P.S.W (WORM THRUST)	0VM403348
B 126	PULLEY	0VM301718D
B 127	PULLEY FELT	0VM404952
B 128	KICK ARM HOLDER	0VM301716
B 129	PRESS FIT BUSH	0VM403652
B 130	KICK ARM	0VM404382
B 131	KICK ARM SPRING	0VM404424
B 132	CLUTCH ASSEMBLY	0VSA05509
B 133	ARM IDLER ASSEMBLY	0VSA05512
B 137	BUSH CLUTCH	0VM404513
B 141	PULLEY SUB ASSEMBLY	0VSA05998
B 142	SHAFT LOCK ASSEMBLY	0VSA04642
B 143	GROUND SPRING(U7)	0VM404920A
B 144	CLUTCH WASHER MK2	0VM404428
B 146	SPRING SUPPORTER	0VM405084
B 147	STOPPER BOSS	0VM405188
B 300	FL ASSEMBLY	0VDM06512
B 301	FL BOX	0VM000062
B 302	RACK	0VM201456B
B 303	F DOOR OPENER R	0VM301992D
B 304	DOOR OPENER	0VM302019B
B 306	SLIDER GEAR L	0VM405213
B 307	F DOOR OPENER R SP	0VM405214C
B 308	SLIDER SHAFT	0VM405222
B 309	MIRROR	0VM405224
B 310	MIRROR HOLDER	0VM405225
B 311	DOOR OPENER SP	0VM405302
B 312	CASSETTE DRIVE GEAR	0VM301994
B 313	CASSETTE DRIVE GEAR R SP	0VM405223A
B 314	CASSETTE PLATE	0VM301993
B 315	SLIDER R	0VM201457F
B 316	DOOR LOCK RELEASE ARM SPRING	0VM402508C
B 317	DOOR LOCK RELEASE ARM(3)	0VM405034D
B 319	CASSETTE SPRING STOPPER	0VM402507F
B 321	SLIDER L	0VM100515C
B 322	LOCK LEVER SPRING(E)	0VM405677
B 323	LOCK LEVER L	0VM405215C
B 325	DRIVE GEAR REINFORCEMENT(3)	0VM405785
B 335	GEAR SUPPORTER	0VM405664
B 336	SLIDER GEAR R	0VM405696
B 337	EARTH PLATE	0VM405683D
B 338	P.S.W CUT (3.1X6X0.25)	0VM405809
B 340	RELEASE BUSH	0VM405678
B 342	DECK PLATE	0VM302185A
L1011	SCREW, C-TIGHT M3X9 PAN HEAD+	GPMC3090
L1051	SCREW, S-TIGHT M2.6X6 PAN HEAD+ or	GPMS9060
	SCREW(CAPSTAN) M2.6X6 S-TIGHT	0VM405901
L1053	SCREW, S-TIGHT M2.6X6 PAN HEAD+ or	GPMS9060
	SCREW(CAPSTAN) M2.6X6 S-TIGHT	0VM405901
L1061	SCREW, S-TIGHT M2.6X4 PAN HEAD+	GPMS9040
L1062	SCREW, S-TIGHT M2.6X4 PAN HEAD+	GPMS9040
L1081	SCREW, S-TIGHT M3X6 BIND HEAD+	GBMS3060
L1091	SCREW, S-TIGHT M3X6 CUP HEAD+	GCMS3060
L1101	SCREW, P-TIGHT BIND HEAD 3X8	GBMP3080

Ref. No.	Description	Parts No.
L1103	SCREW, P-TIGHT BIND HEAD 3X8	GBMP3080
L1104	SCREW, P-TIGHT BIND HEAD 3X8	GBMP3080
L1111	SCREW, P-TIGHT M3X8 WASHER HEAD+	GCMP3080
L1112	SCREW, P-TIGHT M3X8 WASHER HEAD+	GCMP3080
L1121	HEXAGON NUT M3	NHMN030
L1151	SCREW, SEMS M3X4 PAN HEAD +	CPM33040
L1191	SCREW, P-TIGHT M2.6X10 PAN HEAD+	GPMP9100
L1202	SCREW, B-TIGHT M3X6 PAN HEAD+	GPMB3060
L1221	SCREW, SPECIAL	0VM403688
L1231	SPACER SCREW ASSEMBLY	0VM403752
L1241	BIND SCREW P-TIGHT M2X6	GBMP2060
L1291	SCREW, P-TIGHT M2.6X6 PAN HEAD+	GPMP9060
L1301	SCREW, P-TIGHT M2.6X8 PAN HEAD+	GPMP9080
L1311	SCREW, B-TIGHT M3X18 PAN HEAD+	GPMB3180

DECK ELECTRICAL PARTS LIST

**PRODUCT SAFETY NOTE:** Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

**NOTE:** Parts that not assigned part numbers (-----) are not available.

Tolerance of Capacitors and Resistors are noted with the following symbols.

C.....±0.25%	D.....±0.5%	F.....±1%
G.....±2%	J.....±5%	K.....±10%
M.....±20%	N.....±30%,	Z.....+80/-20%

Head Amp (PRV) CBA

Ref. No.	Description	Part No.
	<b>Head Amp (PRV) CBA</b>	<b>0VSA05794</b>
	Consists of the following:	
<b>CAPACITORS</b>		
C 3501	CERAMIC CAP. F Z 0.1µF/50V	3F40104T
C 3502	ELECTROLYTIC CAP. 100µF/6.3V M H7	526R107S
C 3503	ELECTROLYTIC CAP. 0.22µF/50V M H7	526W224S
C 3504	CERAMIC CAP. Y M 0.01µF/16V or CERAMIC CAP. F Z 0.01µF/16V	3Y4D103T 1220842T
C 3505	CERAMIC CAP. Y M 0.01µF/16V or CERAMIC CAP. F Z 0.01µF/16V	3Y4D103T 1220842T
C 3506	CERAMIC CAP. Y M 0.01µF/16V or CERAMIC CAP. F Z 0.01µF/16V	3Y4D103T 1220842T
C 3507	CERAMIC CAP. F Z 0.1µF/50V	3F40104T
C 3509	CERAMIC CAP. F Z 0.1µF/50V	3F40104T
C 3513	CERAMIC CAP. SL J 15PF/50V	3S41150T
C 3521	CERAMIC CAP. B J 100PF/50V	3B41101T
C 3522	CERAMIC CAP. SL J 47PF/50V	3S41470T
<b>CONNECTORS</b>		
CL3502	JUMPER WIRE, 6P	WX1K7010-002
CN3501	ANGLE SOCKET CONNECTOR 15P	1770610
CN3502	FFC CONNECTOR BASE, SIDE 5P or FFC CONNECTOR BASE, SIDE 5P	JC96J05ERC0C 1700471
CN3503	CONNECTOR ASSEMBLY 2P	WX1K7010-007
<b>IC</b>		
IC3501	IC, VIDEO H-AMP LA7376	QSBLA0SSY035
<b>COIL</b>		
L 3501	INDUCTOR 22µH-K-26T or INDUCTOR 22µH-K-26T	LLAXKDTKA220 LLAXKATTU220
<b>RESISTORS</b>		
R 3501	CARBON RES. 1/4W J 22K Ω or CARBON RES. 1/6W J 22K Ω	RCX4JATZ0223 132A223T
R 3502	CARBON RES. 1/4W J 8.2K Ω or CARBON RES. 1/6W J 8.2K Ω	RCX4JATZ0822 132A822T
R 3503	CARBON RES. 1/4W J 1K Ω or CARBON RES. 1/6W J 1K Ω	RCX4JATZ0102 132A102T
R 3504	CARBON RES. 1/4W J 5.6K Ω or CARBON RES. 1/6W J 5.6K Ω	RCX4JATZ0562 132A562T
R 3505	CARBON RES. 1/4W J 33K Ω or CARBON RES. 1/6W J 33K Ω	RCX4JATZ0333 132A333T
<b>MISCELLANEOUS</b>		
2B 2	SHIELD, TOP	0VM301927
2B 3	SHIELD, BOTTOM	0VM301928

Jnt CBA

Ref. No.	Description	Part No.
	<b>Jnt CBA</b>	<b>0VSA05796</b>
	Consists of the following:	
	Joint (Joint-A) CBA	-----
	Mode SW (Joint-B) CBA	-----
	ACE Head (Joint-C) CBA	-----

Joint (Joint-A) CBA

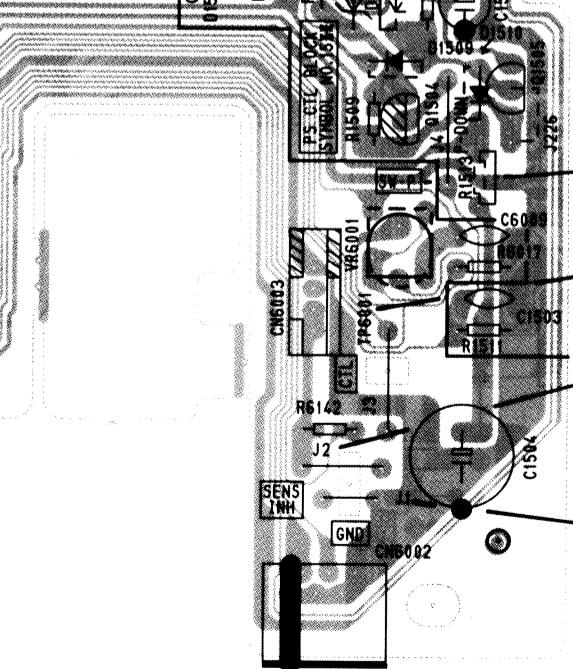
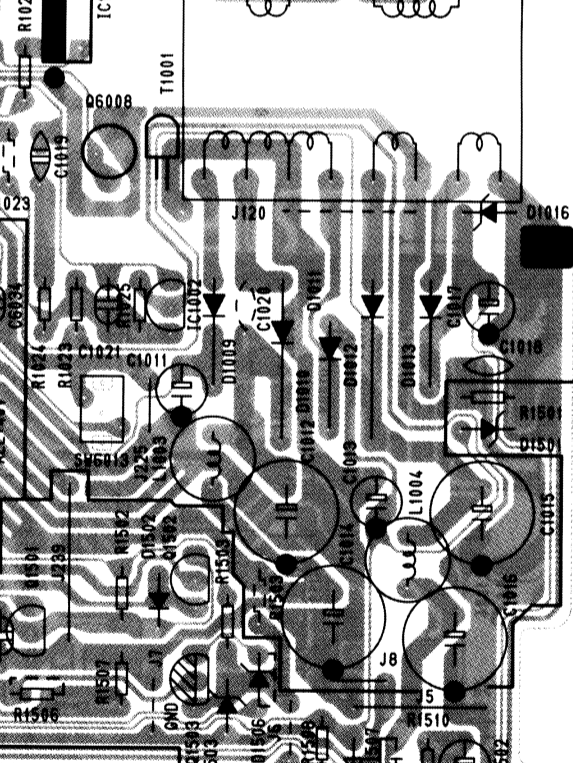
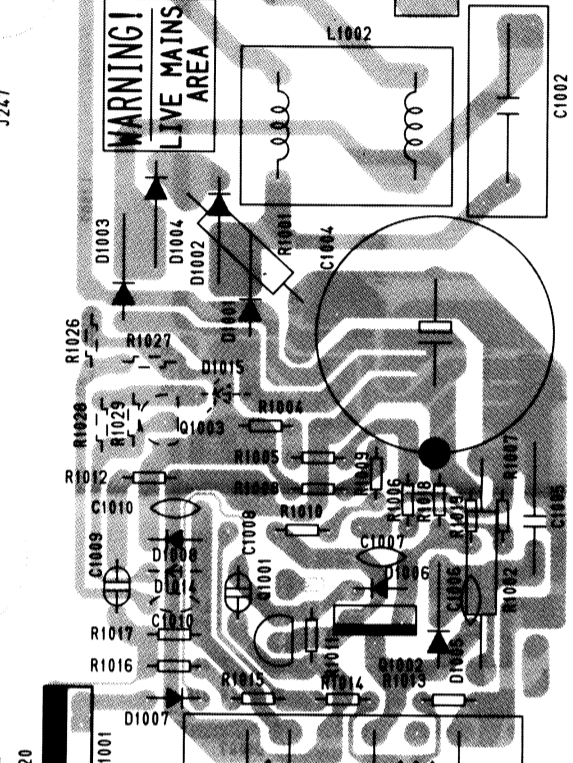
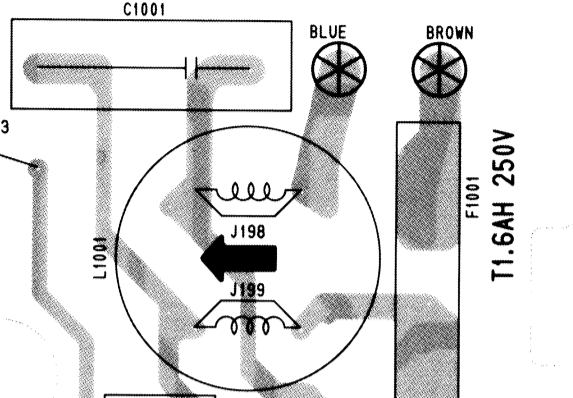
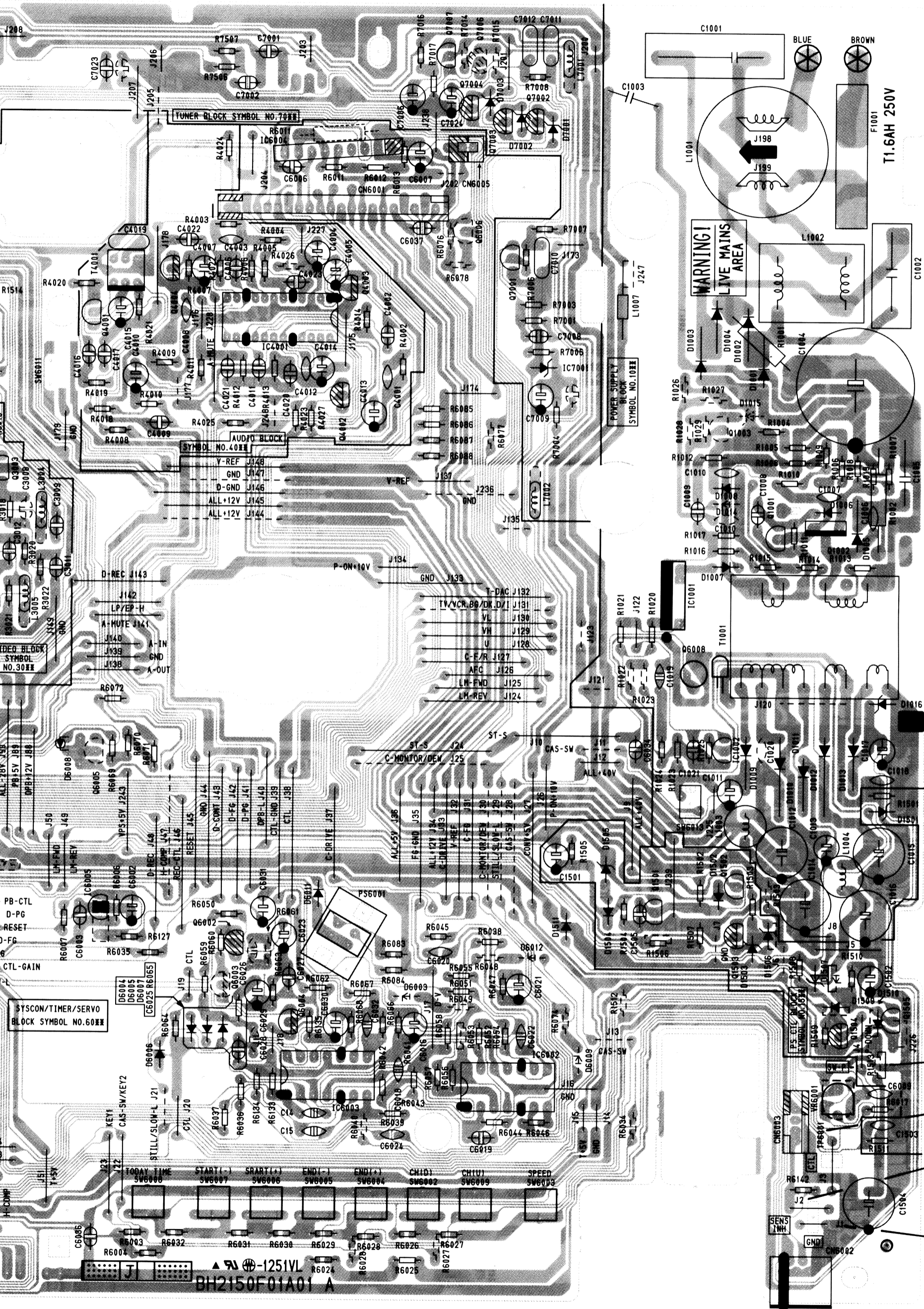
Ref. No.	Description	Part No.
	<b>Joint (Joint-A) CBA</b>	-----
	Consists of the following:	
<b>CONNECTORS</b>		
CN2801	FFC CONNECTOR BASE, TOP 9P or FFC CONNECTOR BASE, TOP 9P or FFC CONNECTOR BASE, TOP 9P or FFC CONNECTOR BASE, TOP 9P or FFC CONNECTOR BASE, TOP 9P	JC2SJ09ERH0C 1700915 1700449 1700515 1700986
CN2901	ANGLE SOCKET CONNECTOR, 20P	1770615
CN2902	ANGLE PIN HEADER, 2P	1740775
<b>RESISTORS</b>		
R 2801	CARBON RES. 1/4W J 27K Ω or CARBON RES. 1/6W J 27K Ω	RCX4JATZ0273 132A273T
R 2802	CARBON RES. 1/4W J 27K Ω or CARBON RES. 1/6W J 27K Ω	RCX4JATZ0273 132A273T
<b>MISCELLANEOUS</b>		
CL2901	JUMPER WIRE, 5P	WX1K7010-003
CL2902	JUMPER WIRE, 6P	WX1K7010-001
	FFC CABLE, 9P	WX3909QZ4413

Mode SW (Joint-B) CBA

Ref. No.	Description	Part No.
	<b>Mode SW (Joint-B) CBA</b>	-----
	Consists of the following:	
SW2901	MODE SWITCH HMW0420-710010	SSR0104HD001

ACE Head (Joint-C) CBA

Ref. No.	Description	Part No.
	<b>ACE Head (Joint-C) CBA</b>	-----
	Consists of the following:	
CN2903	FLAT CABLE CONNECTOR 6P or FLAT CABLE CONNECTOR 6P	JEHBJ06JE001 JC88J06NB001



- VR6001 SW-P
- TP6001 CTL
- J2 SENS-INH
- J1 GND

WF1 TP7502 V-OUT ○  
WF2 TP3001 Y-REC ○  
WF3 TP3002 C-PB ○  
WF3 TP3003 C-REC ○

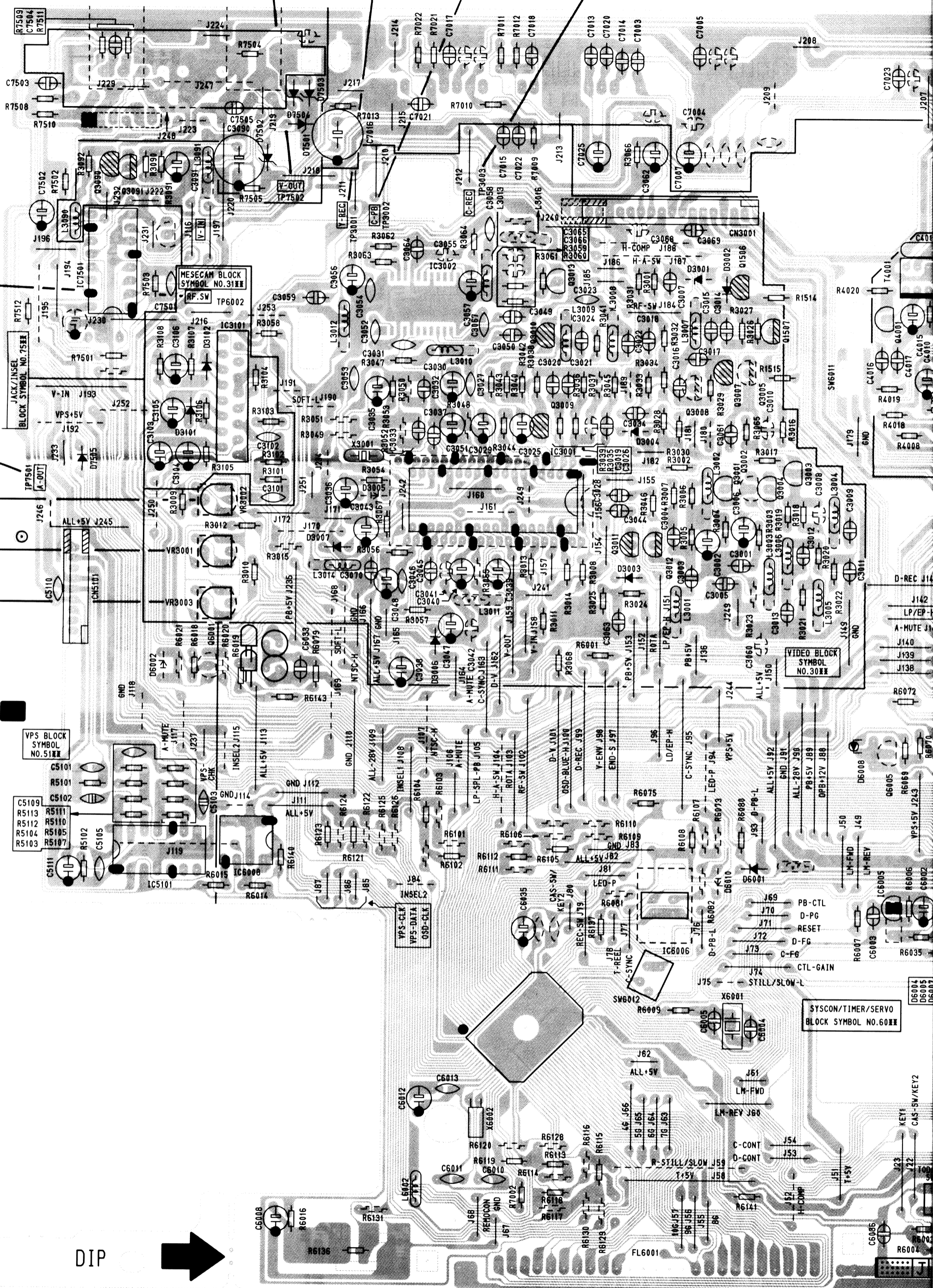
WF2  
○ TP6002  
RF-SW

TP7501  
A-OUT ○

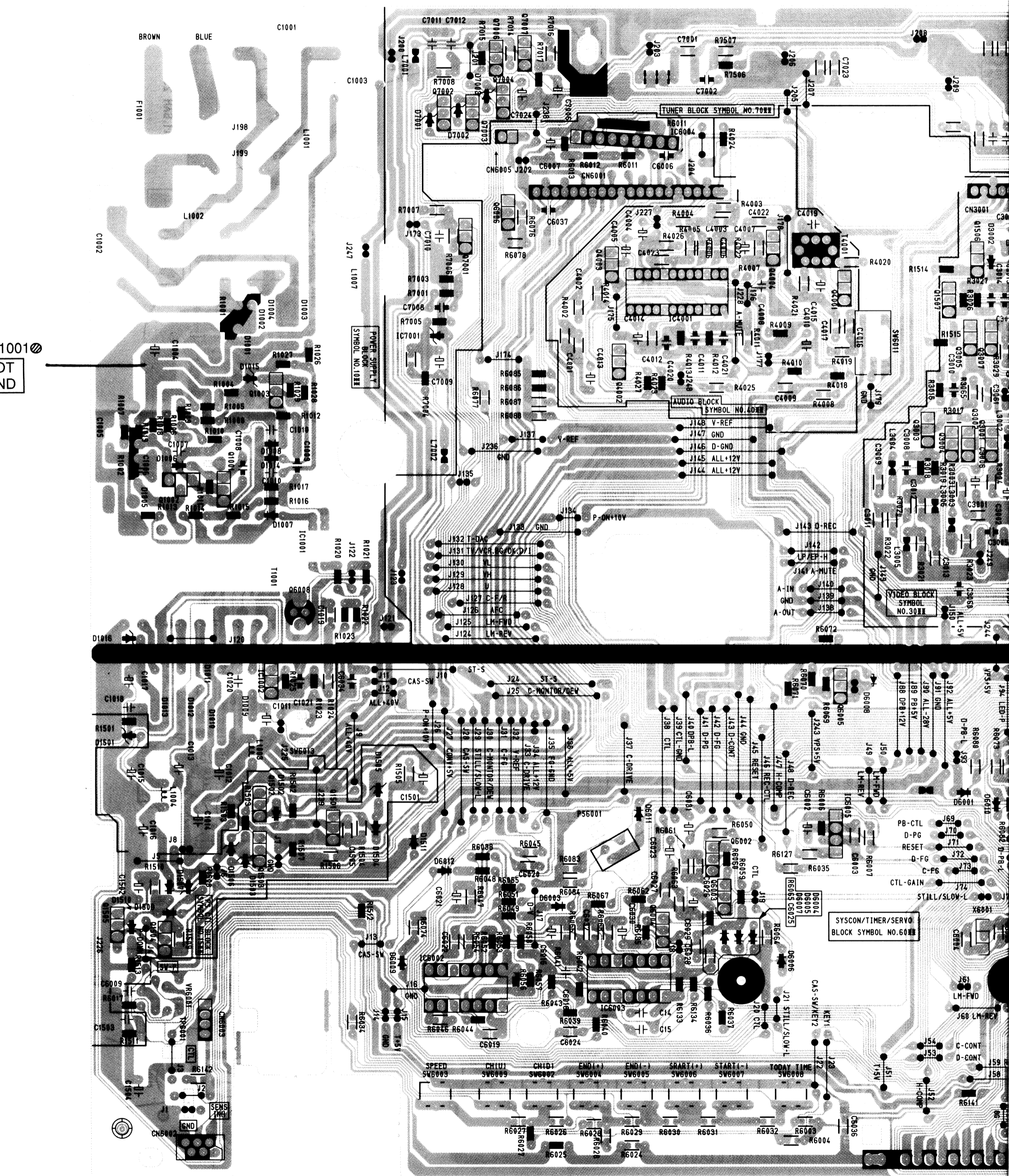
VR3002  
Y-CAR

VR3001  
DEV

VR3003  
EE-LEVEL



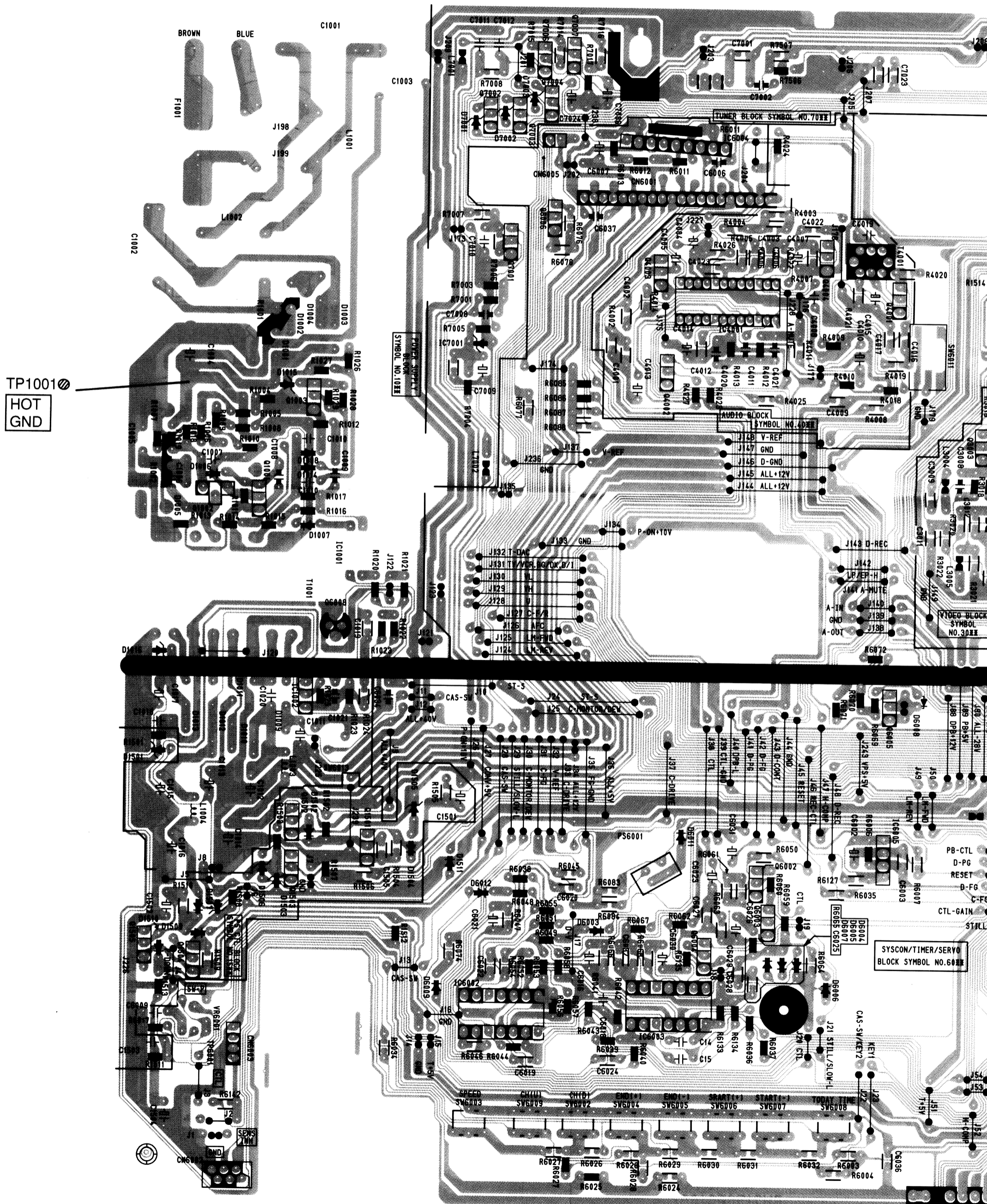




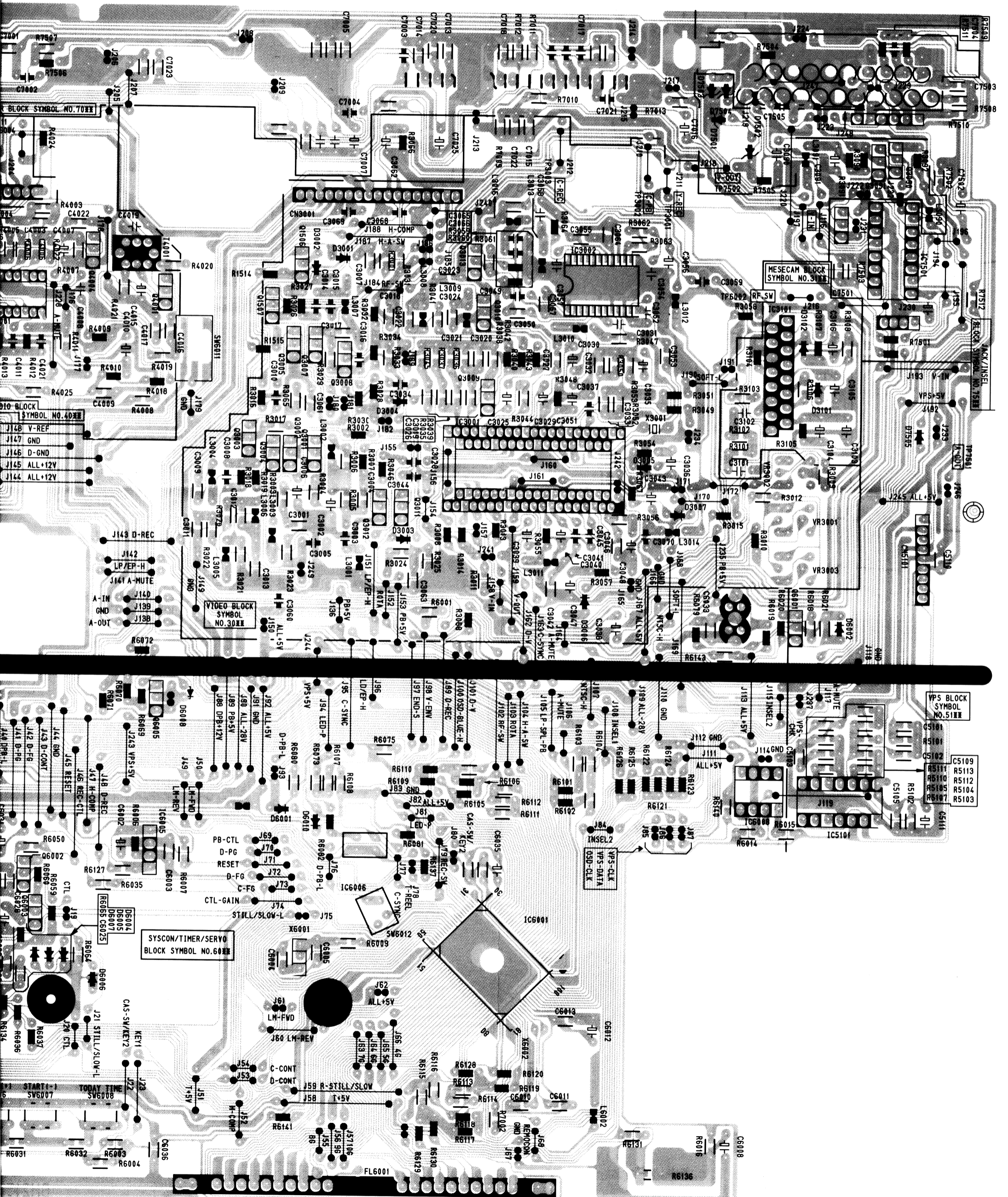
# Main CBA Bottom View (Serial No. H42410001 ~ H42413500)

**CAUTION !**  
Fixed voltage power supply circuit is used in this unit.  
If Main Fuse (F01) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.  
Otherwise it may cause some components in the power supply circuit to fail.

**CAUTION**  
FOR CONTINUED PROTECTION AGAINST  
REPLACE ONLY WITH THE SAME TYPE FU

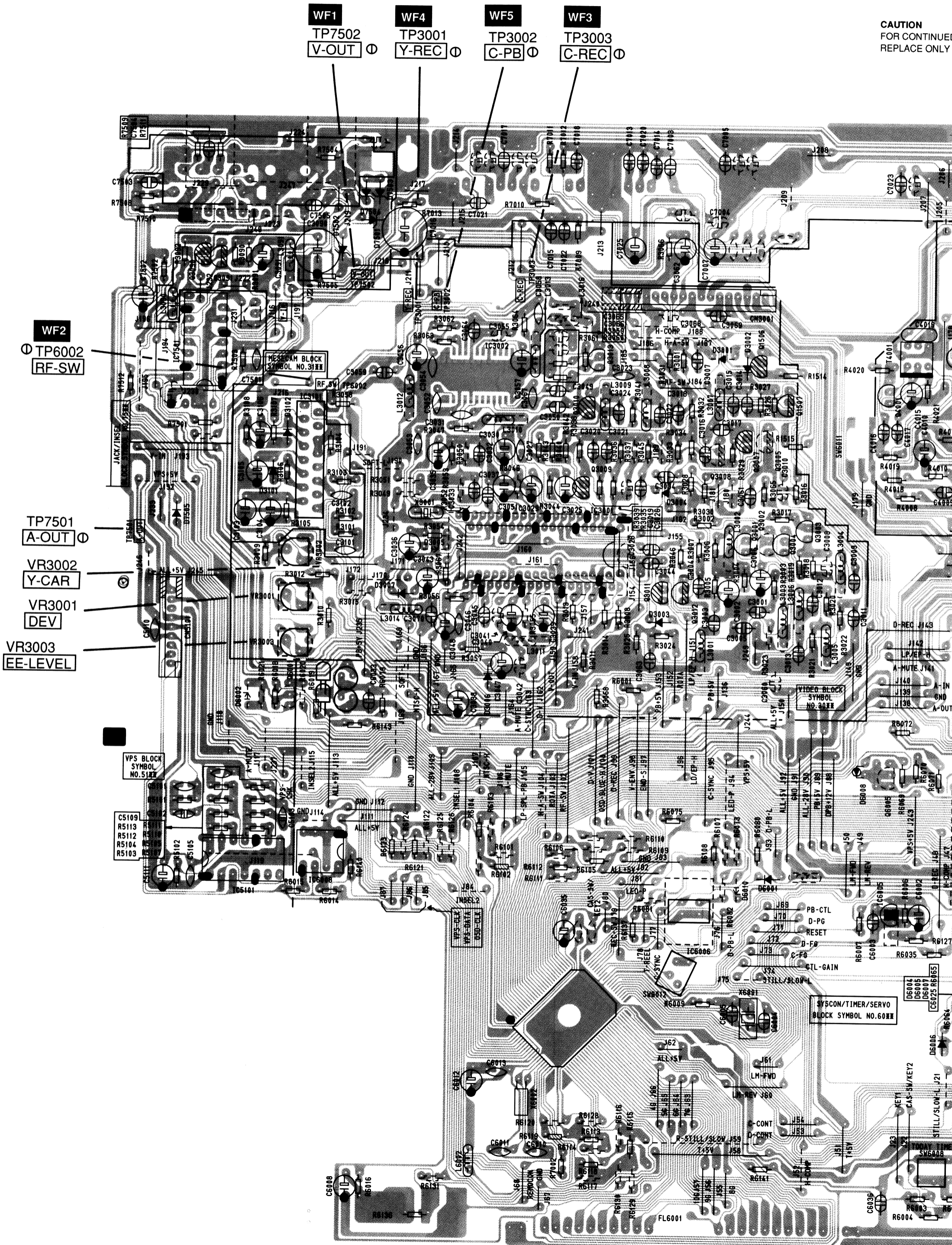


**CAUTION**  
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE FUSE.



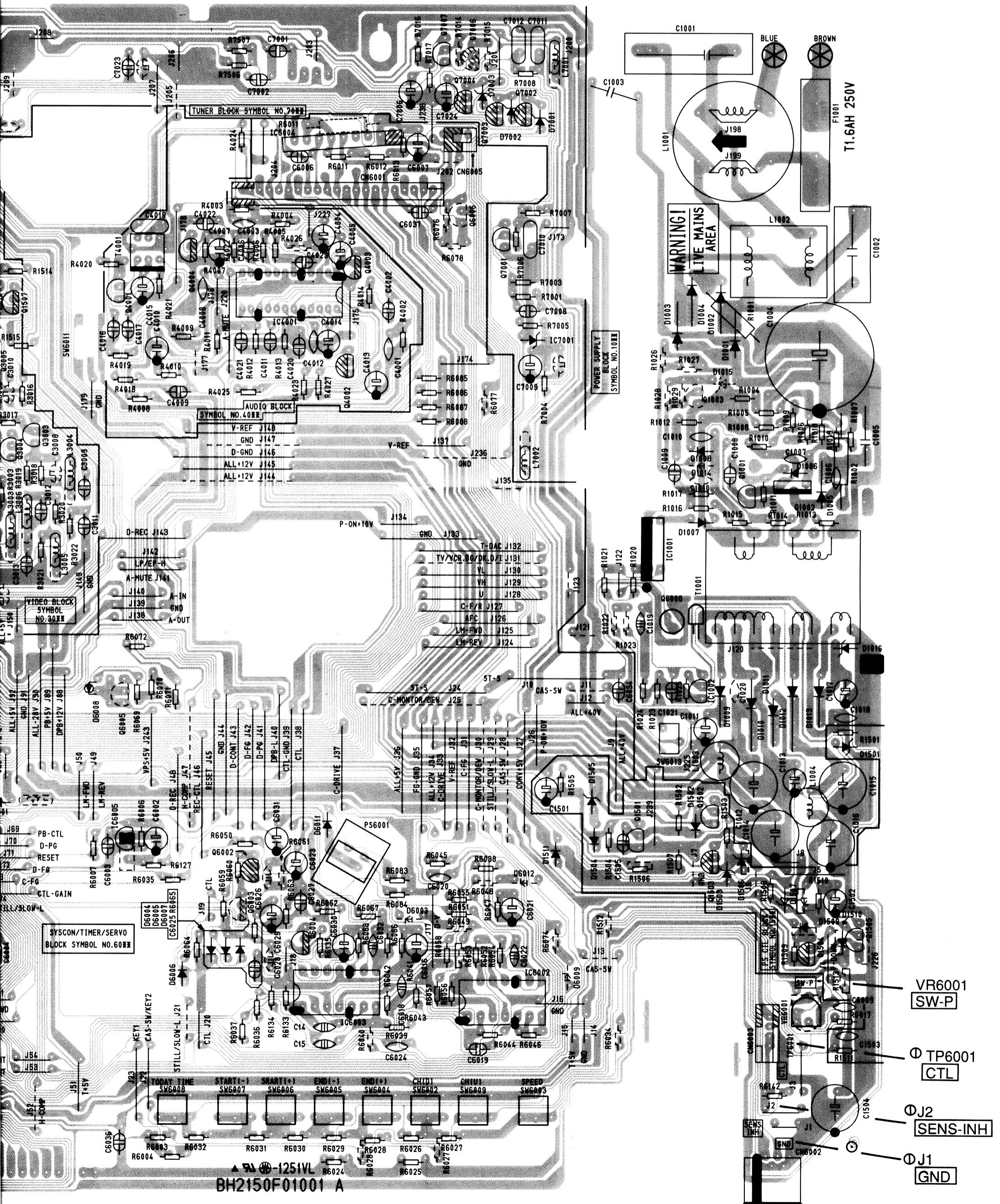
Main CBA Top View  
(Serial No. H42410001 ~ H42413500)

CAUTION  
FOR CONTINUED  
REPLACE ONLY

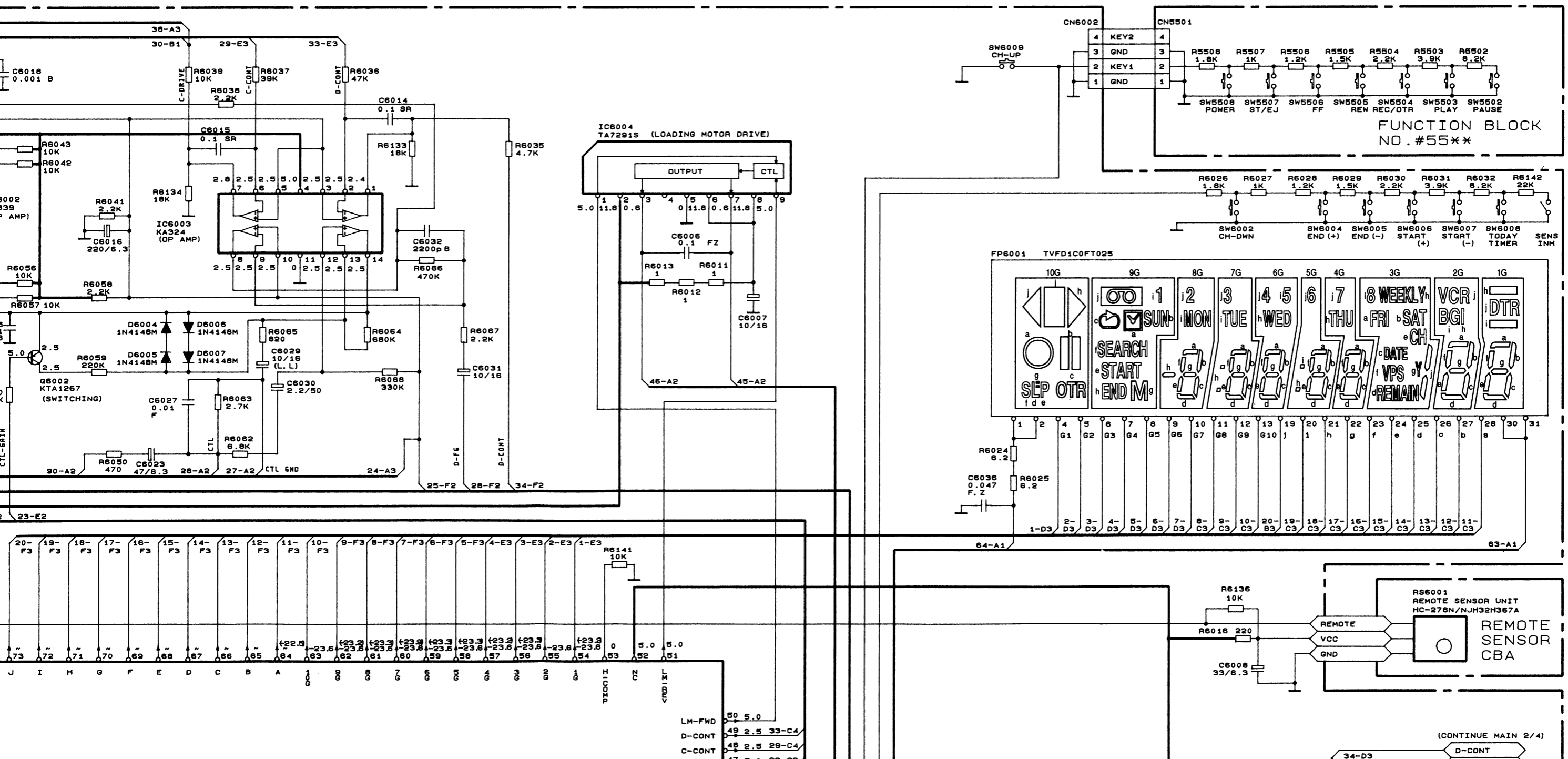
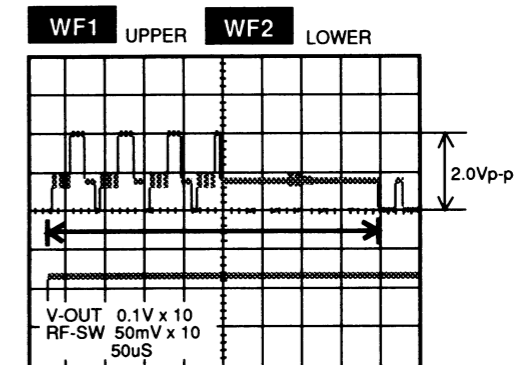


FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE FUSE.

Fixed voltage power supply circuit is used in this unit.  
If Main Fuse (F01) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.  
Otherwise it may cause some components in the power supply circuit to fail.



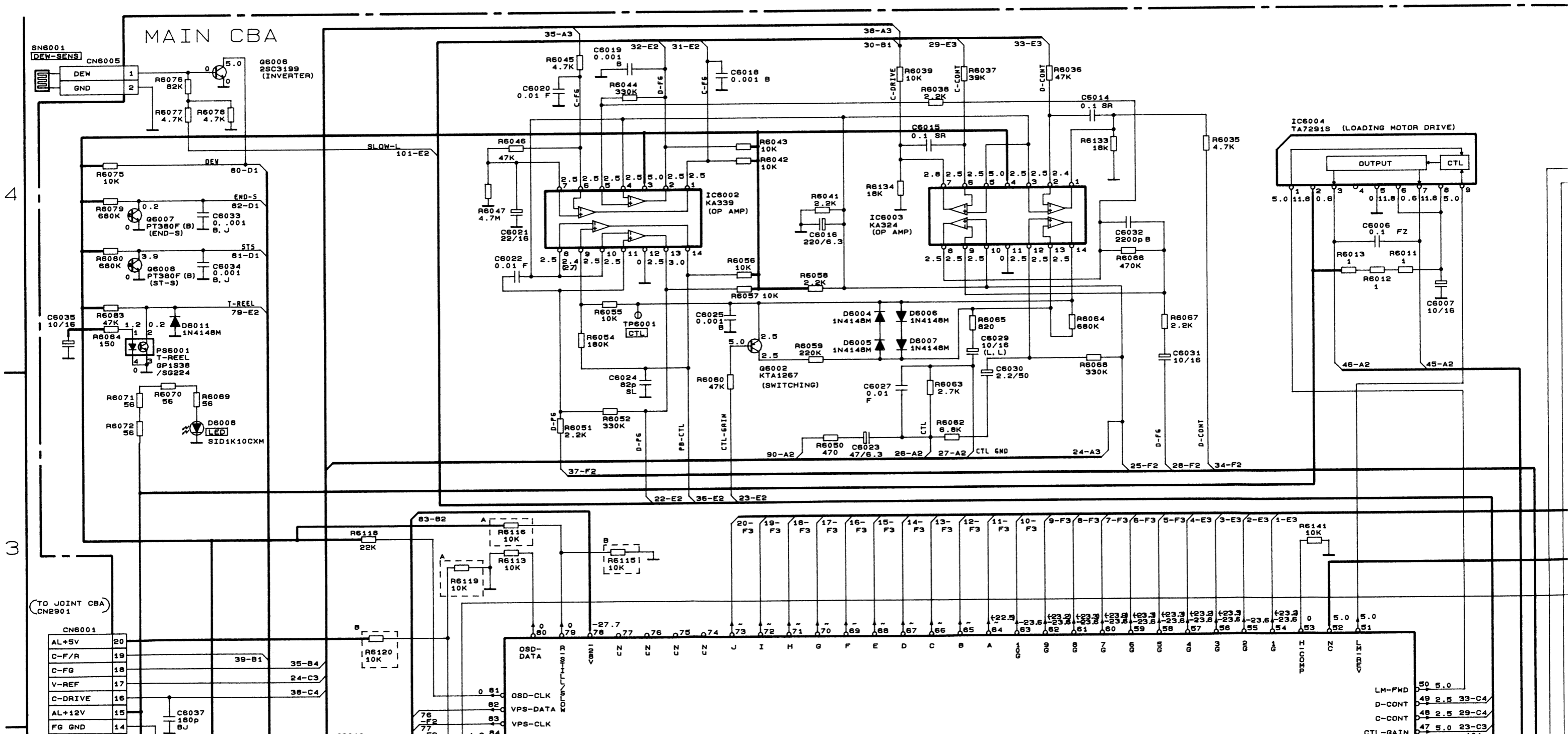
MODEL NO.	MARK
V-8008CM(N)	A
V-8008SA(N)	B



Main 1/4 Schematic Diagram

Comparison

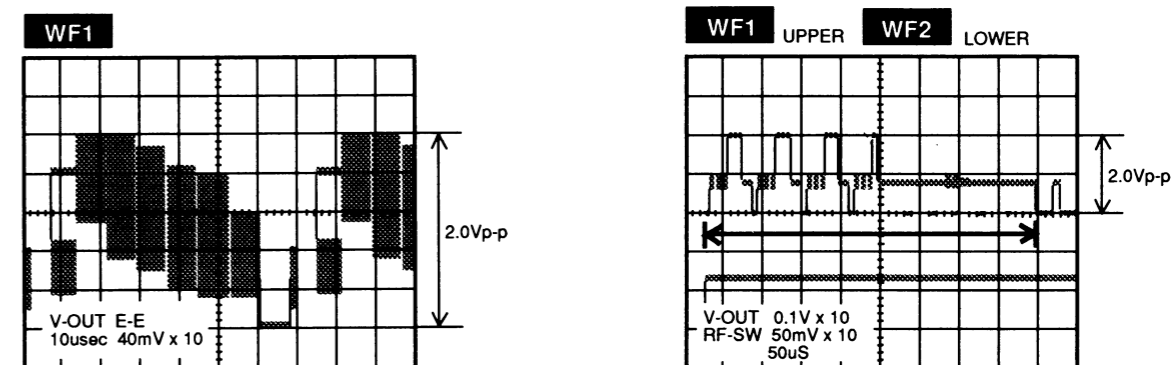
MODEL NO.
V-8008CM(N
V-8008SA(N



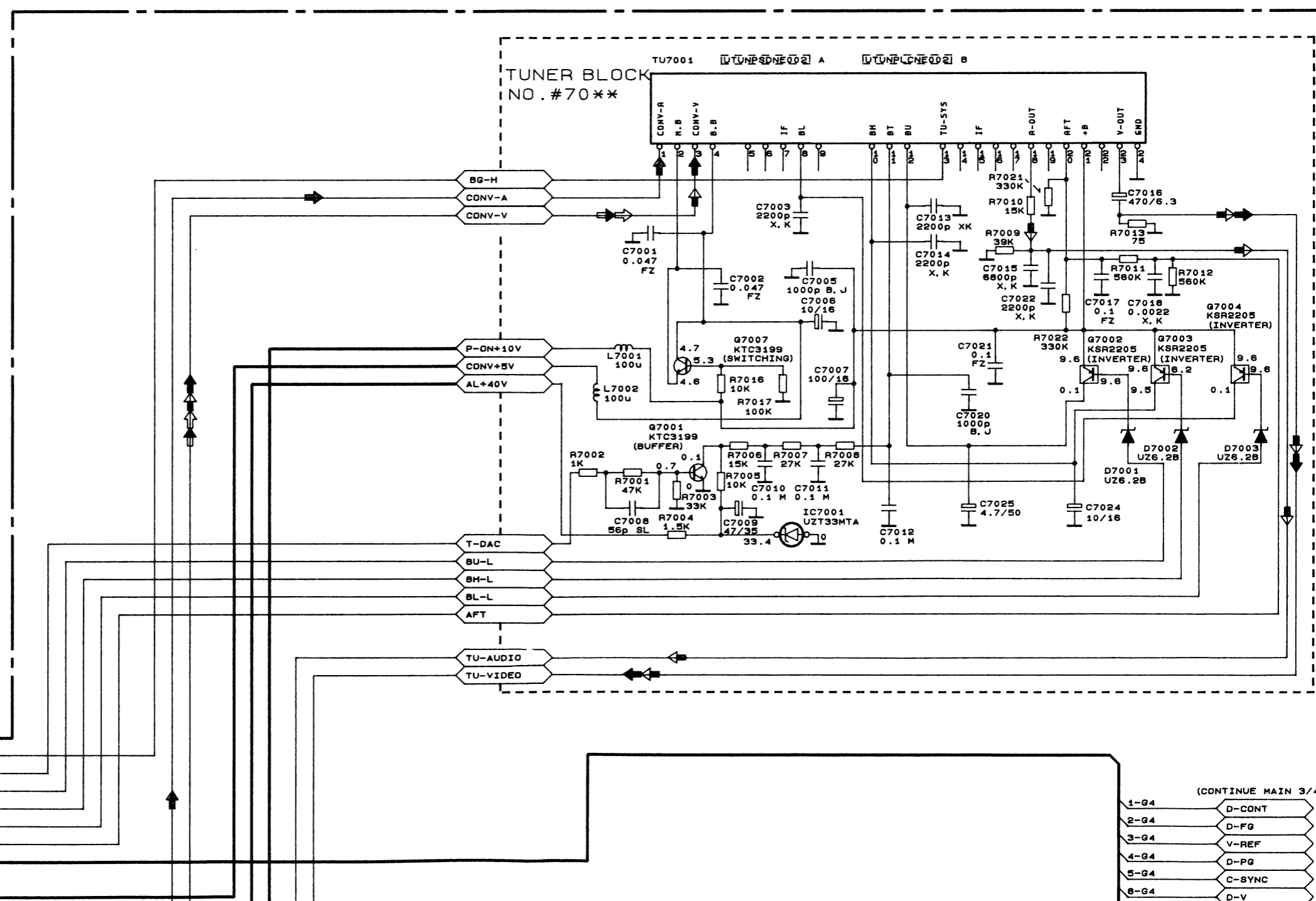




MODEL NO.	MARK
V-8008CM(N)	A
V-8008SA(N)	B



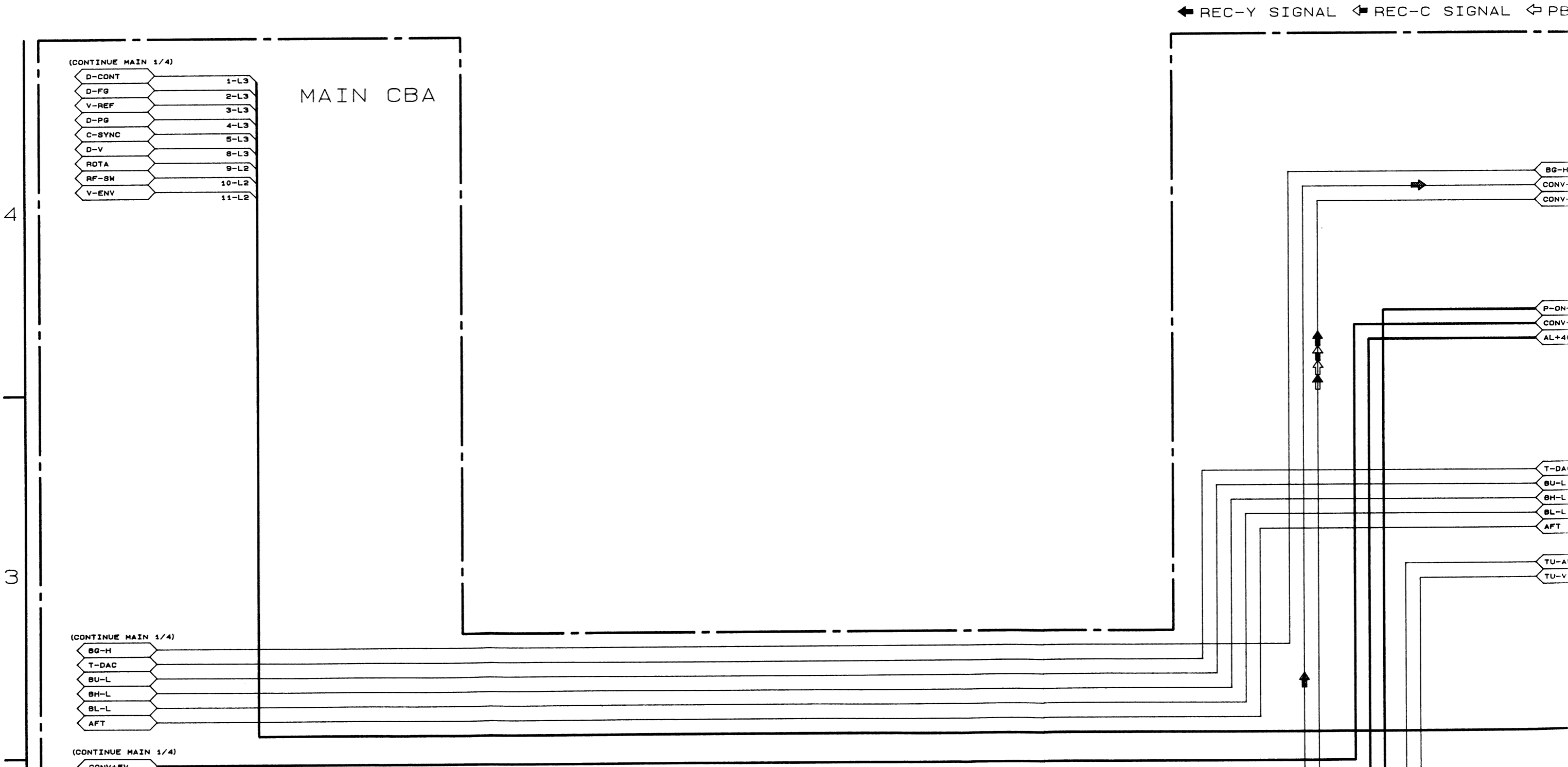
◀ REC-Y SIGNAL    ◀ REC-C SIGNAL    ↶ PB-Y SIGNAL    ◀ PB-C SIGNAL    ◀ REC-A SIGNAL    ◀ PB-A SIGNAL



Main 2/4 Schematic Diagram

Comparison Charts of Models and Marks.

MODEL NO.	MARK
V-8008CM(N)	A
V-8008SA(N)	B





3

(CONTINUE MAIN 1/4)

BG-H  
T-DAC  
BU-L  
BH-L  
BL-L  
AFT

(CONTINUE MAIN 1/4)

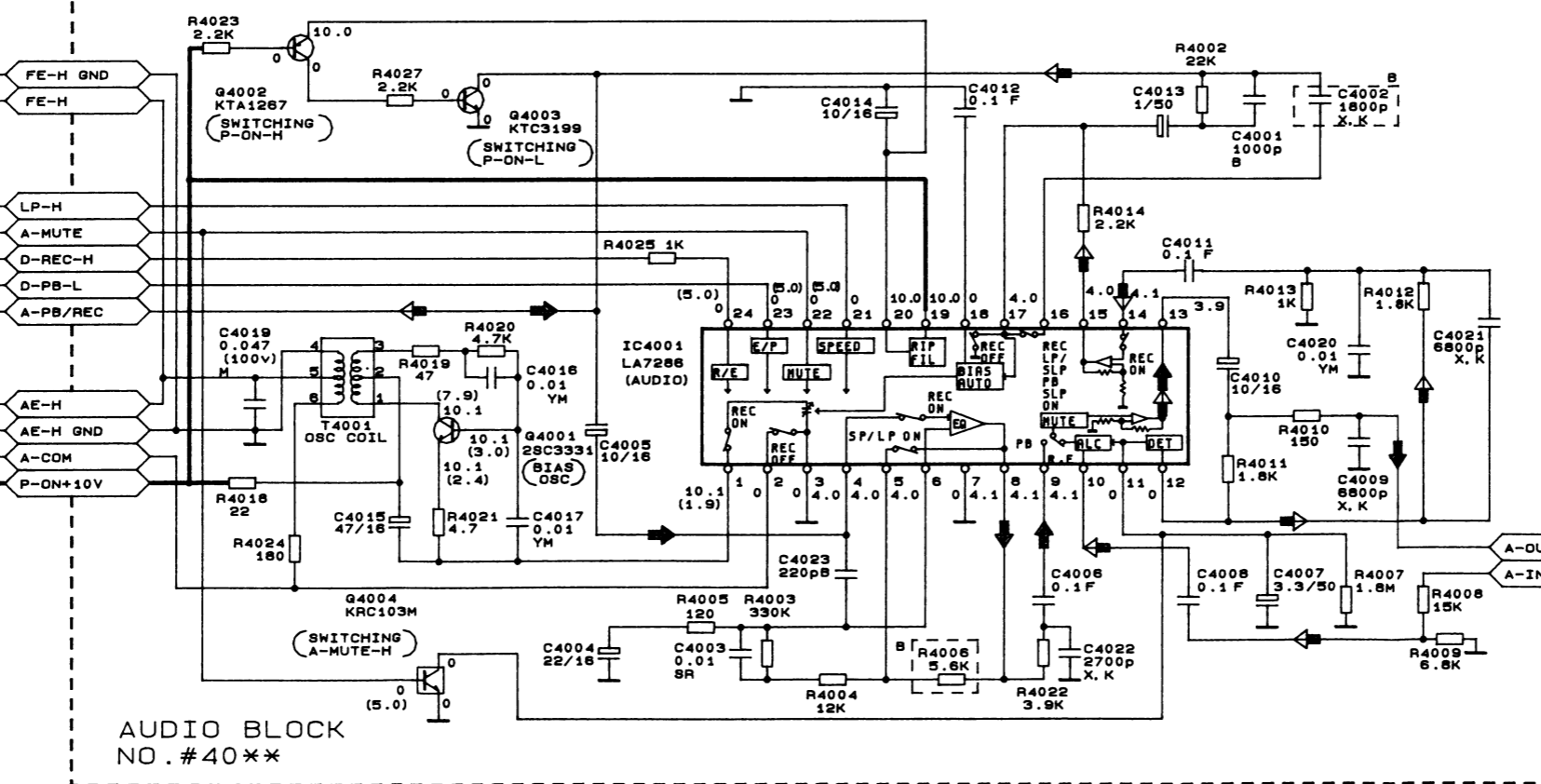
CONV+5V  
AL+40V  
P-DN+10V  
AL-30V  
AL+5V  
D-PB+5V  
D-REC+5V  
AL+12V

(CONTINUE MAIN 1/4)

INSEL1

(CONTINUE MAIN 1/4)

LP/SLP-H  
LP-H  
A-MUTE  
D-REC-H  
D-PB-L  
A-PB/REC  
AE-H  
AE-H GND  
A-COM  
P-DN+10V



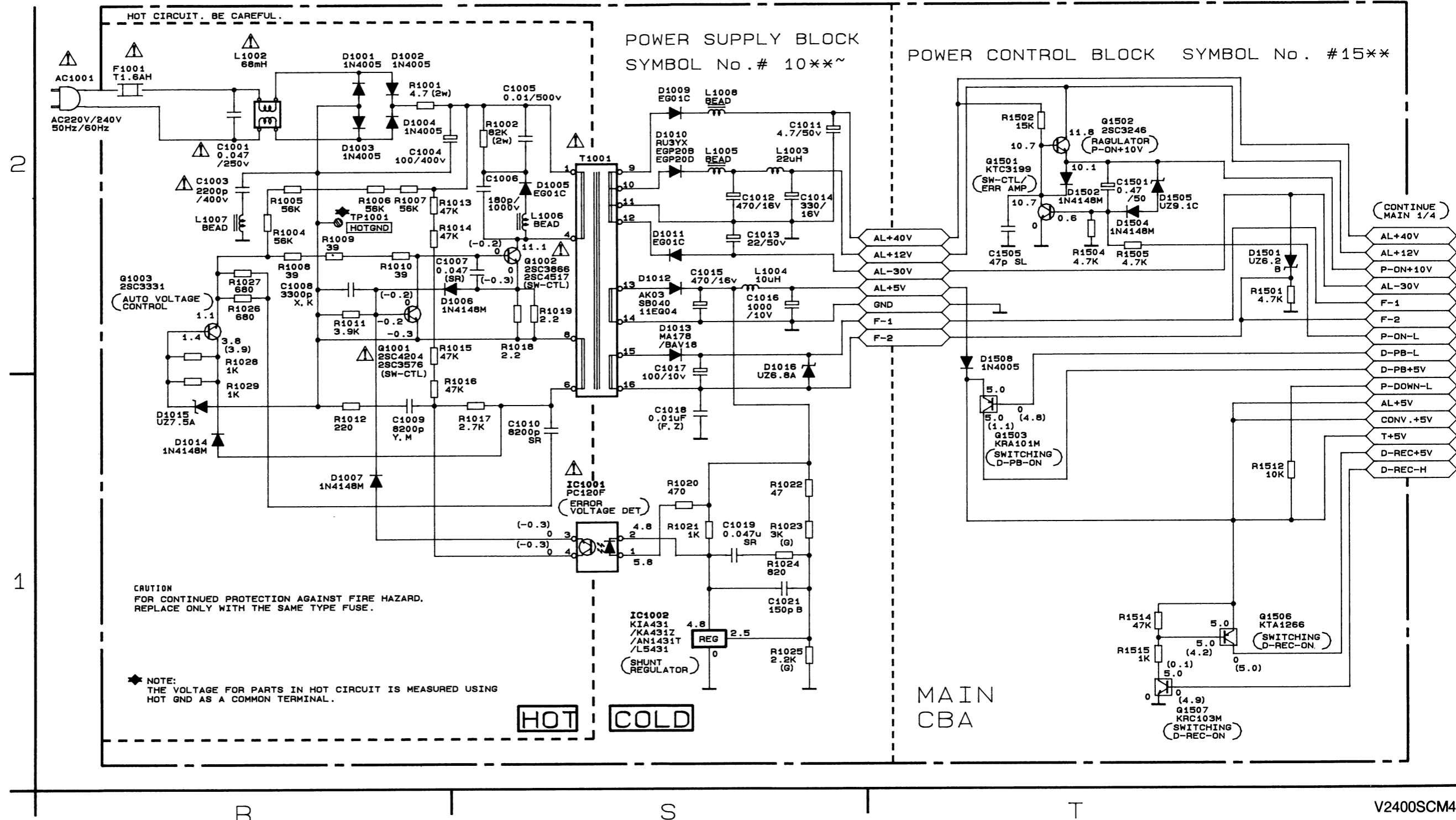
INSEL 1  
TU-A-IN  
AL+5V  
TU-V-IN  
AL-30V

VIDEO-IN  
VIDEO-OUT  
CONV-V-OUT

A-OUT  
A-IN

# Main 4/4 Schematic Diagram

CAUTION!  
FIXED VOLTAGE POWER SUPPLY CIRCUIT IS USED IN THIS UNIT.  
IF MAIN FUSE (F01) IS BLOWN, CHECK TO SEE THAT ALL COMPONENTS IN THE POWER SUPPLY  
CIRCUIT ARE NOT DEFECTIVE BEFORE YOU CONNECT THE AC PLUG TO THE AC POWER SUPPLY.  
OTHERWISE IT MAY CAUSE SOME COMPONENTS IN THE POWER SUPPLY CIRCUIT TO FAIL.



C-PB 10mV X 10  
RF-SW 0.5V X 10

5msec

MODE: SP/REC



